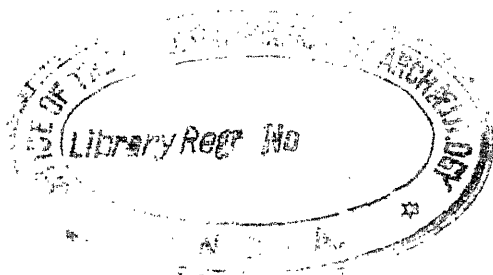


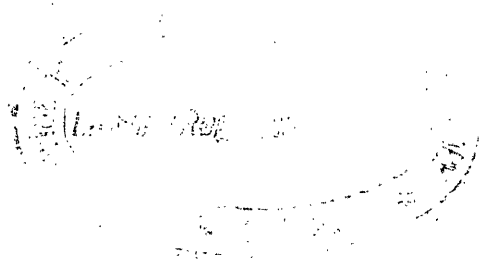
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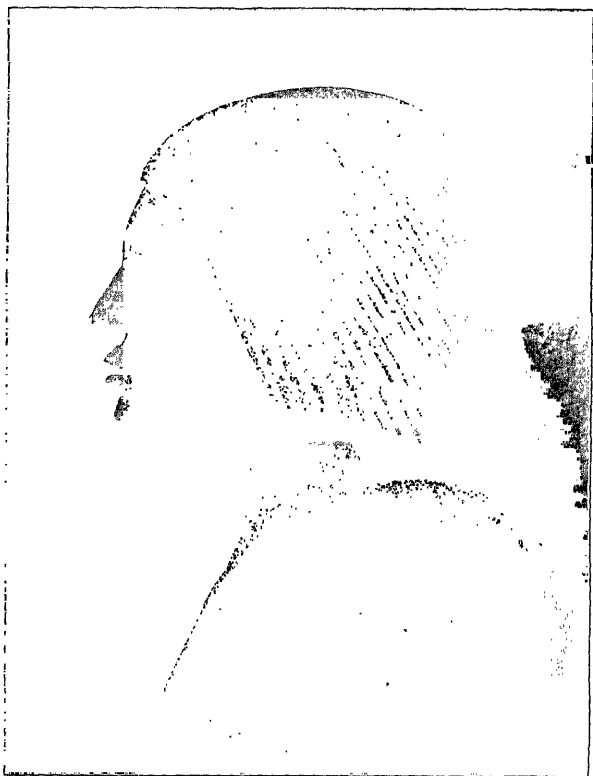
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THE ANCIENT EGYPTIANS





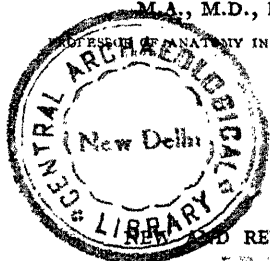
A PORTRAIT STATUE OF RA-NEFER
A MEMPHITE NOBLE OF THE FIFTH DYNASTY
(*circa* 2700 B.C.)

THE
ANCIENT EGYPTIANS
AND THE ORIGIN
OF CIVILIZATION

BY

G. ELLIOT SMITH

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PROFESSOR OF ANATOMY IN THE UNIVERSITY OF LONDON

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PREFACE

THE first edition of this book was written in 1911 to give an account of ten years' work on the remains of the earliest inhabitants of Egypt and to suggest how the new observations might be correlated with the history of mankind elsewhere. Little did I realize when I was writing what was intended to be nothing more than a brief interim report upon a long and very intricate investigation that this little book was destined to open up a new view—or rather to revive and extend an old and neglected method of interpretation—of the history of civilization, which is now becoming the main issue in anthropological discussions and a subject of cardinal importance to every student of the humanities.

I was led to write this book originally to call attention to the new evidence of the introduction into Egypt from Syria about 3000 B.C. of many people of alien type with clearly defined distinctive features, which left no doubt that they belonged to the race variously known in other regions as "Alpine," "Armenoid," or "Slav" respectively. But in the course of my investigations of the movements of these people, which their easily

identified traits made possible, I became convinced that the rude stone monuments of the Mediterranean littoral and Western Europe were not really the most primitive stages in the evolution of architecture, but were crude copies of the more finished and earlier monuments of the Pyramid Age in Egypt, made in foreign countries by workmen who lacked the skill and the training of the makers of the Egyptian prototypes.

Two circumstances are responsible for impelling me to push these arguments further. The manuscript of this book was posted to Messrs. Harper and Brothers in May, 1911, when I was on my way to Cambridge to examine for the Natural Science Tripos. When I reached Cambridge and called upon my friend the late Dr. W. H. R. Rivers to give him an account of what I had just done, he told me that my first incursion into ethnology was a flagrant defiance of all the current doctrines of that branch of study, and would draw down upon my head the most bitter opposition—a prediction that was amply fulfilled. However, he reassured me by telling me that he was actually engaged (at the moment when I disturbed his work) on the task of writing his Presidential Address for the Anthropological Section of the British Association, in which he was making a full and frank recantation of his former acceptance of the orthodox ethnological doctrines. Although it was not until seven years

later (1918) that Dr. Rivers went the whole way with me in recognizing the initiative of Egypt in the creation of civilization (*Psyche*, Vol. III, 1922, p. 118), the fortunate circumstance of his change of opinion in 1911 played a very material part in securing any hearing at all for my heresies.

But on the same day (at Cambridge in May, 1911) I had another experience of a very different nature that was destined to have far-reaching consequences, although at the time it was very disconcerting. The most important scientific result set forth in the manuscript I had posted that morning was the definition of the traits of the aliens who made their way into Egypt about 3000 B.C. When I entered the examination room in Cambridge, what was my surprise to see an example of this type, which had been chosen by my fellow-examiner, Professor E. Barclay-Smith, to test the candidates' knowledge of racial peculiarities! Filled with curiosity, I consulted the Museum catalogue to discover from which of the geographical areas in the Ancient East enumerated in this book the specimen had come; but to my intense amazement I learned that it came from the Chatham Islands, near New Zealand, in the South Pacific, about as far distant from the Ancient East as was possible. For a time I was in some doubt whether or not I should recall the manuscript of this book, for the discovery of this skull seemed to destroy the very

foundations of the argument set forth in it. However, further examination of the available craniological material and literature revealed the widespread distribution of what in this book I have called "Giza traits," not only in Polynesia, but also in the Malay Archipelago and at certain places on the southern Asiatic littoral. This seemed, in fact, to afford evidence of far-reaching movements of people in many respects analogous to those of the Mediterranean and Erythraean Seas discussed in this book. But even more startling was the discovery that crania revealing the same distinctive traits were by no means rare on the Pacific coast of Central and South America.

The facts were so definite and their vast significance so unmistakable that I searched for evidence on the cultural side in corroboration of the only inference one was justified in drawing from the somatological facts. Again, as in the Mediterranean area, the peculiar distribution of megalithic monuments in India, Eastern Asia, Oceania and America provided justification for the working hypothesis. Hence four months later (September, 1911) at the meeting of the British Association, I provoked the first of the many onslaughts predicted by Dr. Rivers by claiming that the sporadic distribution of megalithic monuments west and east of Egypt, as far as the British Isles on one side, and as Japan and America on the other, was due to the influence, directly or

indirectly, of Egyptian civilization. Small groups of people, moving mainly by sea, settled at certain places and there made rude imitations of the Egyptian monuments of the Pyramid Age.

This thesis was maintained and more fully elaborated at the meetings of the British Association in 1912 and 1913; and in the latter year I published a critical examination ("The Evolution of the Rock-Cut Tomb and the Dolmen," *Essays and Studies presented to William Ridgeway*, 1913, p. 493) of the arguments brought forward against the teaching in this book.

In the following year very important corroboration was forthcoming from the study of the geographical distribution (and especially the technique) of mummification, a characteristic element of culture, the Egyptian origin of which is unquestionable. This confirmation of the tentative scheme was further strengthened by the discovery that in outlying parts of the world, where there is evidence of megalithic structures or mummification (as a matter of fact they are usually found in association), there are usually scores of other peculiar customs, arts and beliefs not found elsewhere. Hence in 1915 I formulated the doctrine that in Egypt originated the germs of the civilization of the whole world (*The Migrations of Early Culture*, 1915; *The Influence of Ancient Egyptian Civilization in the East and in America*, 1916; *Ships as Evidence of the*

Migrations of Early Culture, 1917 ; *The Evolution of the Dragon*, 1919, all published by the Manchester University Press ; and the article " Anthropology " in the first supplementary volume to the *Encyclopædia Britannica*, 12th Edition, 1922, p. 143).

But the most important outcome of this line of research was the discovery in 1915 by Mr. W. J. Perry of the meaning of this peculiar geographical distribution. He not only explained the location of these foci of archaic culture but also the motives which impelled small bands of civilized people to wander abroad and settle in certain definite places. These men of old were doing precisely what their modern successors have done in California, Klondyke, Johannesburg, Geelong, Coolgardie, and many other places, and for the same reasons. They were searching for (and exploiting when found) materials which had some definite economic or magical value, such as gold, copper, pearls, silver, amber, lapis lazuli, turquoise, jade, incense, spices, et cetera (W. J. Perry, " The Relationship between the Geographical Distribution of Megalithic Monuments and Ancient Mines," *Memoirs and Proceedings of the Manchester Literary and Philosophical Society*, 1915 ; " The Geographical Distribution of Terraced Cultivation and Irrigation," *ibid.*, 1916 ; *The Megalithic Culture of Indonesia*, 1918 ; and *The Children of the Sun*, 1923).

The recognition of this principle first enunciated by Perry involves the transformation of ethnological enquiry, and opens the way for a real understanding and interpretation of the origin and the history of civilization. It is because this book played some part in preparing the way for this illuminating generalization that it seems worth while to issue a new edition and to give the historical sketch to which the preceding pages are devoted.

There are two points which emerge from the arguments of this book that I want especially to emphasize, because their importance is fundamental and far-reaching.

There can no longer be any doubt that the essential elements of civilization did really originate in Egypt. Agriculture and irrigation, the working of metals and the weaving of linen, the arts of the carpenter and the stonemason, architecture and ship-building, the first measurement of the year and later the substitution of the solar calendar for the cruder lunar calendar and the rough estimate of the year based upon the Nile flood, the art of writing, social customs and principles of organization, methods of administration and principles of government, the kingship, religious beliefs and ritual, magic, clothing and jewellery, and scores of other arts, practices and beliefs covering the whole range of human activities which it is customary to call civilization.

Egypt was, in fact, the creator of civilization. But it must not be assumed that the Egyptians themselves were directly responsible for spreading their great inventions abroad throughout the world. There is no doubt that Egyptian seamen carried the elements of their civilization to Syria and Crete, to East Africa and to Southern Arabia, and I believe also to Sumer. But in each of these places the elements were developed in a manner distinctive of the respective foci; and these in turn became centres of secondary diffusion of the Syrian, Cretan, Erythraean, Babylonian and Elamite modifications respectively of the adopted Egyptian culture. The spread took place both by land and sea (in ships copied from those of Egypt) mainly by miners prospecting for new sources of wealth, and by divers searching for pearls, to which peculiar magical properties were accredited. There is another new reading of the early history which is of such far-reaching significance that I wish specially to call attention to it. In the first chapter of this book reference is made to the fact (previously mentioned by Dr. Randall-MacIver, M. de Morgan and Professor Reisner) that when copper was first used for making implements the forms of the latter were slavishly copied from those previously made of flint, in much the same way as the makers of the first automobiles thirty years ago closely reproduced the form and proportions of horse-drawn vehicles.

It is interesting to note at a later period certain peoples (who had not yet acquired the skill to work the new material) reversing the process and making stone implements in imitation of forms adopted by the makers of copper tools. For there is no longer room for doubt that the polished stone implements of the Neolithic phase of culture in Western Europe are imitations of the copper models made in the neighbourhood of the Eastern Mediterranean. It must not be forgotten that, although copper was first used in Egypt roughly about 3500 B.C., the alloy bronze was invented, probably in Khorassan, not until a thousand years later, and the practical knowledge of how to make and use the alloy—in other words the creation of the Bronze Age—did not begin in Western Europe for yet another thousand years. Thus there was a possible overlap in Western Europe of two millennia between the time when metal tools were in common use in Egypt and the Bronze Age began in the West. Now these twenty centuries, or less, represent the so-called "Neolithic Age." It is clear that the Neolithic culture (not merely its agriculture, domestication of animals, its pottery and linen, its burial customs, et cetera, but also the forms of its implements) was derived, directly or indirectly, from Egypt, and that its stone monuments were copied from those built in Egypt not earlier than the Sixth Dynasty. Recognizing, then, that the Neolithic

is a derived culture, which in Western Europe could not have begun much earlier than 3000 B.C., and possibly not before 2500 B.C., it is manifestly irrelevant to speak of the culture in Egypt before the discovery of copper as "Neolithic."

This point is so important that I must emphasize it by one more comment. If the elements of the Neolithic culture were planted in Europe by wanderers from the East, then in the copper stage of culture—possibly by miners exploiting the copper ores to ship back to their homelands—it must always be borne in mind that in course of time the local inhabitants in the West themselves learned to work these ores and inaugurated a copper phase of culture, but this so-called *Æneolithic* phase is not identical with the copper culture of Egypt. Not only is it much later in time, but it follows the Neolithic phase, which in turn *follows* the copper phase in Egypt and represents a partial adoption of the protodynastic culture of Egypt.

If, however, one travels East from Egypt, another set of conditions will be found; but there is no culture-complex which can strictly be identified with that called Neolithic in Europe. The appreciation of these considerations cannot fail to clear up much of the obscurity which results from the use of the ambiguous term "Neolithic" and the gross exaggeration of its antiquity. That such views are still current in the writings of

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serious anthropologists is shown in Professor John M. Tyler's *The New Stone Age in Northern Europe* (1921). He "allows more or less than 5000 years for the Neolithic period!" Other recent writers carry the exaggeration even further.

If the new edition of this little book does nothing more than induce anthropologists to look at the evidence from a new angle my task will not have been in vain.

For valuable help and encouragement in preparing the new edition of this work I want to express gratitude to my colleague, Mr. Norman H. Baynes, of University College, London.

G. E. S.

January, 1923.

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THE ANCIENT EGYPTIANS AND THE ORIGIN OF CIVILIZATION

CHAPTER I

INTRODUCTION

THE NEW KNOWLEDGE OF ANCIENT EGYPT

RECENT years have witnessed a truly remarkable increase in our knowledge of those generations of mankind, of whom, as the writer of Ecclesiastes expresses it, there is no remembrance; and no country has been so fruitful as Egypt in yielding a harvest of information concerning early Man and his works that is not only surprisingly abundant, but also possesses the even more valuable quality of precision, both as to time and circumstance, which makes it reliable as evidence.

Three circumstances, however, in addition to these general claims on our consideration, combine to render the present moment a singularly favourable one for attempting a new appreciation of the achievement of Ancient Egyptians in laying the foundations of civilization and of the precise rôle

this interesting and much misunderstood people played in moulding the history of the world.

In the whole history of mankind no single factor has had an influence so great and so far-reaching as the invention of the art of agriculture, which represents the beginning of real civilization. Former writers have claimed Babylonia, Syria, Phrygia, or some other locality, as the home of agriculture, or put forward the view that the cultivation of the soil was devised independently by the people of all these places, as well as of India, China, America, et cetera, when the pressure of hunger drove them to devise means of increasing their food supplies. But it is now certain that such a reading of the early history of civilization is utterly false.

The merit belongs to Professor Thomas Cherry of Melbourne, of calling attention to weighty arguments that seem to prove clearly and definitely enough the origin of agriculture in Egypt, when the early inhabitants of the Nile Valley imitated the processes which Nature revealed to them year by year. By making artificial channels they brought water from the river to a wider area so as to increase the barley crop. This discovery of the device of irrigation and the realization of its tremendous significance involved vastly greater issues than even the invention of so fundamentally important a practice as agriculture. For it was responsible

for the first serious and systematic attempt in the history of the world at co-operative work, the earliest instance of the control by one man of the labour of his fellows. Leadership in constructive work and the development of statesmanship take their origin from the needs of these earliest farmers. The irrigation engineer who compelled the other members of the community to work under his direction and regulated the orderly distribution of water to the barley fields became the first king the world knew; and his genial reputation as the bestower of sustenance and prosperity to the community led to remarkable results. By a not unnatural confusion on the part of an unsophisticated people he acquired the reputation of being himself the incarnation of the life-giving powers which he bestowed upon his people, so that it became the custom, when his own strength and virility showed any signs of failing, to slay the king so as to put the welfare of the community into charge of a younger and more potent ruler. But the fame of the former beneficence of the slaughtered ruler and his services as the giver of life and prosperity to the whole community brought about his apotheosis: the dead king became the first god, Osiris, who soon assimilated to himself many of the attributes of his predecessor, the Great Mother, who until then had been a more or less shadowy spirit, the personification of a life-giving amulet. The ideas

that found expression in the creation of the real god Osiris in the image of man made an instant appeal to mankind, and he was adopted in Syria and Mesopotamia, and subsequently by every people who accepted any religion. (Compare Sidney Smith, "The Relation of Marduk, Ashur, and Osiris," *The Journal of Egyptian Archæology*, Vol. VIII, 1922, p. 41, who follows Professor Percy Newberry in crediting the origin of Osiris to Syria.)

No one acquainted with the conditions that obtain in Egypt now, as in ancient times, is likely to deny the outstanding feature of successful administration in that country. The prosperity of the land and the welfare of the inhabitants is entirely dependent upon a strong central government to ensure just and adequate irrigation throughout the whole land. This is an absolute necessity, and it became essential when the change took place from uncontrolled flood irrigation to the artificial regulation of the water by artificial dams and canals, which had to be done in an orderly manner throughout the whole country if it was to be a success.

Now this control of the flood, actual and omnipresent, must have appeared miraculous and superhuman; and the peasants, whose life and welfare were dependent upon it, would not unnaturally regard it as divine. Such social conditions were not found at this time anywhere

else ; in no other country was there anything analogous to this vast object-lesson in beneficence, the great river-god, visible and omnipotent, bestowing life and prosperity to the whole community. Was it any wonder that the fame of the man who accomplished this miracle led to his deification and his identification with the river which he taught his people to control ? The conditions in Mesopotamia were different. Agriculture and irrigation could not have been started there until men had acquired the experience elsewhere how to tackle a task of such difficulty. Egypt was the only country in those times that could provide men with the knowledge and experience in irrigation which their gentler river had enabled them to acquire and afterwards apply to control the more turbulent streams of Sumer.

The abundance and reliability of their cereal crop relieved the early dwellers in the Nile Valley from the perpetual search for food, which occupied so large a part of the time and attention of other people who were less favourably situated. This sense of security gave them the leisure to make those daring excursions in statecraft and religion to which reference has just been made. They were able to organize the first State and to ponder over the meaning of the momentous discoveries they were making. The life-giving powers of the water that made the desert blossom as the rose,

and the powers of the king who conferred this elixir of life upon the community, and regulated the distribution of the boons of prosperity and fertility, were the chief subjects of speculation ; and out of the pondering upon these new revelations there emerged the germs of the first science of biology and physics, which we in these later ages call primitive religion and magic. The earliest cultivators of the soil in Egypt were in fact laying the foundations not merely of agriculture and irrigation but of all the arts and crafts, the social organization and religious beliefs which became an integral part of the civilization that was being built up sixty centuries ago and in later ages was diffused throughout the world.

The leisurely cultivation of the material resources of their homeland and of the world of ideas that suggested themselves in the process was rewarded with a rich harvest of new elements of culture. The discovery of the fact that by the mechanical process of irrigation new life could be infused into the apparently dead and barren desert seems to have raised in these early people a genuine hope and expectation of the possibility of giving men also a new supply of vitality by analogous means. In their efforts to bring about this prolongation of existence after what we call death the archaic Egyptians incidentally devised the art of embalming and the crafts of the carpenter and stonemason, and they laid the foun-

dations of architecture, and the belief in immortality, at first for gods only, but afterwards for all mankind, whom we, preserving in our common speech the old distinction between gods and men, often call "mortals."

But the Egyptians did a great deal more than merely invent agriculture and devise the earliest statecraft and religion. Not only did they devise the methods of working wood and stone and the art of architecture, they seem also to have been the inventors of linen and of the craft of weaving, of the use of gold and copper and the making of metal tools and implements. They were the first people to measure the year and to devise a calendar, and later on to substitute for the rough calculation based upon the date of the annual Nile flood the more exact measurement based upon the observation of the sun's movements. They also invented ship-building and constructed the first sea-going ships. In a thousand and one of the details of our common civilization the originality of Ancient Egypt is revealed. The art of shaving, the use of wigs, the wearing of hats, the invention of the kilt and the sandal, and subsequently of a variety of other articles of dress, many of our musical instruments, chairs and beds, cushions, jewellery and jewel-cases, lamps—these are merely a few of the items picked at random out of our ancient heritage from the Nile Valley.

Of the incidental results of the development of the first civilization none perhaps was fraught with greater possibilities in stimulating the world-wide intercourse of peoples than the discovery of metals. In a thousand ways it raised the arts of civilization to a higher plane, and gave so marked a stimulus to progress that by contrast the Stone Age seems to us metal-users the very embodiment of inertia. It did much more, however, than merely quicken the pace of invention, and stimulate the advancement of the arts and crafts: it widened the scope of human endeavour, and, as Dr. Reisner has shown, was not without influence even on the moral and intellectual qualities of its users. For the confidence that was bred of the knowledge that implements of metal were superior to those of stone awakened courage and the spirit of great adventure.

But this appreciation of the value of copper exerted indirectly an even more profound influence: for the search for the ore became one of the chief factors in bringing about the diffusion of civilization.

For many years the ingenuity of scholars has been taxed to its uttermost in the search for the authors of the fateful discovery, which was responsible for this world-encircling revolution in the affairs of men. Whole shelves of libraries are filled with the records of this quest, which has come to be looked upon almost as the pursuit of

a will-o'-the-wisp. It flits from the centre of Europe to Spain or Britain, or in the opposite direction to Asia Minor, Babylonia, or even the Far East, to China, Japan and America, or again, in a southern direction, to some part of the dark continent of Africa, only to elude the searchers whose efforts to locate the inventors of the instruments of metal have been so often doomed to disappointment.

Yet ever since the year 1894 Egypt has been displaying the full story of the coming of copper, complete in every detail and circumstance, written in a simple and convincing fashion that he who runs may read. But of the many who have spelt out the letters of this story during these seventeen years, no one seemed to have read the words or understood their vast significance until Dr. Reisner, in 1908, called attention to the very clear and precise record, preserved in the predynastic graves of Upper Egypt, of that country's great contribution to the knowledge and material prosperity of the world, when her sons discovered copper and invented metal tools and weapons.

Perhaps it is not strictly accurate to attribute the credit for this discovery wholly to the masculine portion of the Proto-Egyptian population : for, like many of the great events that ruffled the surface of the ancient world, and brought wars and revolutions, it is more than probable that

the discovery of copper was due, in part at least, to the habits of their women. They supplied the predisposing circumstances of the discovery, even if they did not actually produce the metal from its ore.

It was the custom of the Proto-Egyptian women, and possibly at times of the men also, to use the crude copper ore, malachite, as the ingredient of a face paint ; and, for long ages before the metal copper was known, this cosmetic had been an article of daily use.

It is probable that such circumstances as these were the predisposing factors in the accidental discovery of the metal. For on some occasion a fragment of malachite, or the cosmetic paste prepared from it, dropped by chance into a charcoal fire, would have provided the bead of metallic copper and the germ of the idea that began to transform the world more than sixty centuries ago.

Charles Lamb's famous story of the discovery of the virtues of roast pork, which for the sake of greater piquancy he attributed to the Chinese, might be transformed, with only comparatively slight modifications, into an imaginary picture of the discovery of copper by some Proto-Egyptian woman, as the result of some similar domestic tragedy. Lamb showed a true insight into the working of the mind of primitive man when he represented him burning his house every time he

wants roast pork for dinner, simply because he first obtained that delicacy by the accidental burning of his house, in which the pigs were incarcerated. By an analogous mental operation, when the Proto-Egyptian began to realize the use to which copper might be put for the manufacture of implements, he began to make them in the exact semblance of his stone weapons and tools.

But even this he did not attempt for many years after he discovered copper. It appealed to him at first as a substance resembling gold, with which he was already familiar, and he employed it for making bands, possibly used for personal ornaments. He soon learned to make small pieces of wire, which, when bent into a loop at one end, became needles. Then came the later stage of manufacturing tools and implements in imitation of the flints he had been using up till this time. But it was not until many years, perhaps even centuries later, that he learned to cast the metal in moulds and make large blades—implements of the crafts, the chase, and warfare—the designs of which were not limited by slavish imitation of stone implements.

Every stage in the history of the discovery and the evolution of the working of copper is represented in Egypt, and is preserved under circumstances that enable us to appreciate in some measure the motives which led the Egyptians

on, step by step, to the full realization of the immensity of the power they had thus acquired.

In his popular book entitled *Ancient Times* (pages 47 and 48) Professor James H. Breasted has adopted the story told in the preceding two pages, but he refers the discovery of copper to Sinai instead of Upper Egypt or Lower Nubia, where it probably occurred (for the reasons see my article in *Man*, 1916, page 26).

Before the discovery of the metal copper the ore malachite was in daily use among the Proto-Egyptians as a paint. It seems to have been so widely used because magical virtues as a giver of life were attributed to it. Its green colour was compared to the Green Nile, which made the land of Egypt green and fertile. Hence the green ore was regarded also as an elixir of life (Donald A. Mackenzie, "Colour Symbolism," *Folk-Lore*, 1922, p. 160).

In no other country has a similarly complete history been revealed, and it is quite inconceivable that two neighbouring peoples made the discovery of copper independently at about the same time: in other words, it is idle to refuse the due recognition of the claim now being made for Egypt of having forged the instruments that raised civilization out of the slough of the Stone Age.

For many years the discussion of the problems of the great world-revolution inaugurated by the advent of the Age of Metals has wandered some-

what aimlessly, like a rudderless ship, amidst the great ocean of conflicting possibilities. With no certain knowledge as to the location of the centre from which the influence of the new leaven was being diffused, historians were unable to decide in which direction a particular wave of metal-users' culture was moving; for they were not sure which was the periphery and which the centre of its sphere of action.

With the definite localization of the discovery of copper in Upper Egypt, a whole host of difficulties that have obscured the real history of the close of the Age of Stone in Europe ever since scholars turned their attention to that problem vanish at once.

If the discovery of copper and the realization of its value as the material for making tools and weapons were in themselves events of tremendous significance, they exerted an influence of another kind that was even more potent in shaping the history of civilization. The recognition of the economic value of copper impelled the Egyptians to search for the ores of this precious substance in foreign countries and so began a process of exploitation which eventually extended throughout the world. Wherever miners settled in alien lands to work the ores they incidentally introduced their own methods of agriculture and burial, their customs and beliefs. Hence each mining camp became a focus of cultural influence,

introducing in some form or another the benefits and evils of a civilization which was primarily inspired by events in Egypt. The credit of recognizing this important factor is due to Mr. W. J. Perry.

This new light on Egypt's services to mankind, and all that followed in its train, would alone have sufficed to justify a new attempt being made at the present time to appreciate the part played by Egypt in moulding the world's civilization.

But there are two other factors that contribute in no small measure to make this the psychological moment for such an attempt.

Until the present time the systems of chronology adopted by most scholars in reference to the earlier historical periods in Egypt, Babylonia, and the other nations of antiquity, have been so varied and so misleading that it has not been possible to form any just conception of the relative antiquity of the different civilizations or to picture Egypt's relations to her neighbours at any time more remote than 1500 B.C.

When the discrepancy between the estimates of the date of the amalgamation under one sovereignty of the two kingdoms of Egypt ranged from 3300 B.C. to 4800 B.C., or even to more than the sixth millennium B.C., and the figures assigned as the age of the dawning civilization of Babylonia were exaggerated in a manner even more disconcerting, it was out of the question to decide

which events were contemporaneous in these two civilizations, or whether a particular development in the one State was subsequent to or the precursor of a similar phenomenon in the other. In other words, it was not possible to make any just estimation of the possible mutual influence of one upon the other.

Most serious scholars who concern themselves with the problems of the ancient history of Egypt and Babylonia have abandoned these inflated estimates of the lengths of the historical periods in the two Empires; and it is now generally admitted that Meyer's estimate of 3400 ± 100 B.C. is a close approximation to the date of the union of Upper and Lower Egypt; and that the blending of Semitic and Sumerian cultures in Babylonia took place long after this event in the Nile Valley.

The importance of being able to synchronize events in the two Empires, on the banks of the Nile and the Euphrates respectively, and to determine whether a particular cultural development in one precedes or follows a similar event in the other, is not to be measured wholly as the mere arranging of these historical facts in an orderly sequence, or even as the determination as to whose is the merit of initiating each new phase of development: the actual dates of so many important Egyptian events are known with a close approximation to the actual figures of the years in which they occurred that Egypt has

become the chronometer for the histories of all peoples of antiquity whose doings can be shown to be contemporary with Egyptian events.

The means thus acquired of assigning precise dates to historical events in Egypt and determining the sequence of innovations among the various peoples of antiquity enable us to follow the spread of the knowledge of copper among the nations, and also to appreciate its influence upon civilization in a manner that would have been impossible of realization, if these two favourable circumstances had not occurred in conjunction the one with the other.

But there is a third circumstance, without which even the other two would have been little better than broken reeds as supports to any far-reaching hypothesis of the course of ancient history. I refer to the recently acquired knowledge of the remains of the people themselves, and the positive evidence they afford of the nature and affinities of the ancient Egyptian population. It is this aspect of the question that led me to undertake the writing of this book: for the other two circumstances, being matters of a purely archæological nature, can only be dealt with in an adequate manner by those whose special scholarship entitles them to estimate the value of such evidence. But while considering the racial problems in the light of my own investigations of the anatomy of the ancient populations, and

studying the movements of men which such researches clearly demonstrate, I have found so much evidence of a confirmatory and supplementary nature in the writings of archæologists that I have not hesitated to make free use of such information. At the same time it is my duty to inform the reader in the most specific way that I lay no claim to the right to express any opinion on archæological matters, although I have borrowed freely from the writings of scholars whose authority is very widely recognized.

It may be a matter for surprise that I should speak of the knowledge of the human remains as being newly acquired, when there is the literary product of a century's activity on the part of a numerous array of anatomists and others, who have been discussing this aspect of the problems of Ancient Egypt since the year 1811, when Blumenbach, in the light of modern knowledge, recommenced the consideration of a subject which had exercised the Greek and Roman philosophers and a host of mediæval historians.

In the life-like portraits, cut as bas-reliefs and statues, the Ancient Egyptians themselves made some of the most valuable anthropological records that have come down to us from ancient times ; and the classical Greek and Roman writers, who have given us their own impressions of the various peoples, as well as the traditions current in their time, have made the modern student of Man their

debtor. No doubt much of their narrative is pure fantasy ; but mixed with it one often comes across scraps of information, derived in some cases from personal observation, in other cases from local tradition, which are in accord with the results of modern research and afford valuable confirmation of them.

Probably the first recorded attempt to distinguish a representative of one race from that of another by an examination of their bones was made more than four centuries before the commencement of the Christian era by Herodotus, who tells us that he was able to discriminate between the skulls of a Persian and Egyptian respectively from the fact that the latter was the thicker of the two. This observation has proved to be of evil omen to craniology, and sadly anticipatory of much modern work in this domain of research, for the supposed distinction is false.

Most of the investigations of the physical characteristics of the Ancient Egyptians that the last hundred years have produced in such abundance have led to comparatively sterile results. Two distinct causes are responsible for this unsatisfactory state of affairs, which has led the historian (and, one is bound to admit, not without ample justification) to view with grave suspicion the assistance proffered by the anthropologist. It is possible, however, to make the dead bones tell their tale ; but the story they tell must of neces-

sity lack cogency and meaning to the historian if the date and provenance of the bones are unknown. Yet most of the material from Egypt upon which anatomists have brought their knowledge and experience to bear during the last century has not been worth their attention, because its source was doubtful, or worse. The light such material shed upon the anthropology of Egypt cannot be other than as vague and uncertain as, for example, would be the knowledge of the history of America that might be acquired from the study of a series of bones, however skillfully conducted, and however great their number, if the investigator had no means of knowing whether they were pre-Columbian or nineteenth century in age, or whether they came from an English cemetery in Massachusetts, an Indian mound in Ohio, or a Chinese burial-ground in San Francisco ! Can there be any surprise, therefore, that the anthropological record has not been of much help to the historian ?

Moreover, the first material that could throw any definite light upon the physical characteristics and racial affinities of Egypt's earliest population did not begin to come to light until the year 1894, and several years elapsed before the nature and significance of these prehistoric remains were appreciated. But, even then, many facts revealed by the comparison of these early bones with those of the later inhabitants of Upper Egypt still

remained unexplained, and were a source of confusion. In fact it was not until 1901 that the material which was destined to supply the data to clear away these difficulties began to come to light. It was my singular good fortune to have had the opportunity of studying all of this important material.

Another reason for the unsatisfactory results obtained from the study of human remains in Egypt is the nature of the means so often adopted to wrest from the bones the story graven in their structure. Egypt seems to have exercised a peculiar fascination upon the amateur anthropologist, the man who weaves, in the case of each individual whose skeleton comes up for study, marvellous stories of strange habits, and afflictions no less mysterious, upon the basis of some structural feature, which a modicum of anatomical knowledge would have shown to be common to the whole of mankind ; or, again, who from a few measurements of bones extracts infinitely more information than Nature put into the mere dimensions of the things measured when she shaped their forms and determined their sizes.

These, however, are matters that can well be put aside while we turn our attention to the positive source of information that counts, and is of real value to the historian.

Now for the first time we are in possession of accurate information of the physical characteristics

and affinities of the earliest inhabitants of Egypt, and a considerable number of facts concerning the precise times at which they became mixed with aliens, the distinctive features of the latter, and the manner in which the admixture took place.

Such knowledge has been unattainable hitherto, and it is the possession of this great mass of newly-acquired facts that is my justification for writing this book.

For further information in reference to the coming of copper and the other matters dealt with in this chapter the reader is referred to Dr. George A. Reisner's *The Early Dynastic Cemeteries of Naga-ed-der* (University of California Publications, 1908) and the Report for 1907-8 of Archaeological Survey of Nubia.

A fuller summary of the works of Mr. W. J. Perry and Professor T. Cherry mentioned in this chapter will be found in the Article on "Anthropology" in the 12th Edition of the *Encyclopædia Britannica* (1922).

CHAPTER II

THE DEBT OF CIVILIZATION TO EGYPT

THE writings that embody the achievements of modern scholarship and fill the swollen shelves of our libraries will be searched in vain for any just appreciation of the influence exerted by Egypt's early culture on the nascent civilization of Europe and the world at large.

The very wealth of material which Egypt has spared from ancient times seems to have so monopolized the attention of those who have devoted themselves to its study that the relation of Egyptian history to that of the world at large has been often lost sight of by those best fitted by their special knowledge to appreciate it.

Thus Egyptian civilization has come to be looked upon as something exotic and alien to European culture, and no adequate consideration has been given to an estimation of the place which Egypt should occupy in the scheme of the world's history.

The more obvious debt to Asia has been amply acknowledged, if not unduly exaggerated, during the present generation.

The fact that Europe derived a not inconsider-

able element of the very flesh and bone of her population from Asia is widely acknowledged. The opposition of a small minority of scholars to the recognition of this obvious truth has been overwhelmed by a flood of incontrovertible evidence, which makes it no longer possible to refuse to admit the Oriental source of these material and cultural contributions to Europe. New evidence from Egypt will be brought forward in this book—the testimony of an impartial witness of the Asiatic stream into Europe—to indicate the reality of Asia's donations.

Whatever view one may take of the potency of environment to broaden the skull and mould the physical characteristics of a population, such an influence cannot be invoked to explain the sudden appearance in Europe towards the end of the Stone Age of broad-headed people with physical traits sharply differentiated from those of their contemporaries and predecessors. For people presenting these distinctive peculiarities appeared at this epoch, not only in the Alpine highlands, but also in valley and plain ; on the warm southern shores and bleak north-west ; and not on the continent of Europe only, but also in the British Islands and the isles of the Mediterranean, as well as on the African shore, from Egypt even unto Morocco and the Canary Islands. By no stretch of the imagination can environment be used to explain the diffusion of this distinct and well-

defined racial type into regions exhibiting every variation of heat and cold, of moistness and dryness, of altitude, and every other changing factor in the circumstances and mode of living covered by the expression "environment."

And if the reality of the immigration of the people into Europe be admitted, how can we refuse to recognize her indebtedness to Asia for customs and beliefs, for arts and crafts, for the learning of Ancient Babylon and the Oriental debt of Greece, to whose ancient civilization Europe became heir?

Amidst all the discussions that have raged around these problems of the nature and extent of Asia's sway in Europe, and of the manner in which it was able to impress itself upon the West, the more ancient, and at the same time more intimate and subtle, influence of Egypt has received little or no consideration.

The very fact that Egypt's culture began to be a power in Europe at an exceedingly remote period long before the dawn of history and the contact of Asia with Europe, makes it all the more difficult for us to realize the sway she exerted.

The Asiatics entered Europe as foreign immigrants, bringing an alien culture, the impress of which is blazed upon her civilization in a manner that obtrudes itself, simply because it is alien. Egypt's relations with the Western world were of a totally different nature.

If there is one fact more than another that can

be said to have been definitely established by modern anthropological research, it is the certainty that the Proto-Egyptians were linked by the closest bonds of racial affinity to the Early Neolithic populations of the North African littoral and Southern Europe. My own investigations corroborate the conclusions in regard to this matter obtained by other means by Professor Sergi, and set forth in his *Mediterranean Race*. It is equally certain that Egypt was the first of these kindred peoples, scattered around the Mediterranean, to raise herself in culture above her peers and cast off the trammels of the Stone Age. It was not only the chance discovery of copper that lifted Egypt above her contemporaries, for she had already displayed her pre-eminence in many ways before the coming of metals.

The community of origin of this group of kindred peoples explains the similarity of many of their customs and beliefs because the people themselves had wandered west from Egypt ; but the adoption of precisely similar practices, many centuries after the wide dispersal, cannot be wholly accounted for, either by a common parentage or a parallel evolution of ideas, the germs of which existed amongst the community of peoples before their geographical separation.

The sudden appearance in one branch of this family of nations of customs, every stage in the evolution of which is displayed in the monuments

of another branch, is evidence of the most positive and conclusive kind that some sort of inter-relation was maintained between these separated peoples, by virtue of which one was able to influence the others. It would be a wholly mistaken and untenable contention to pretend that the sister nations of Egypt in the Mediterranean group, her co-heirs in the traditions that all shared alike, did not also each evolve from the common heritage a distinctive culture peculiar to itself. Europe did not borrow the distinctively European type of civilization, but the germs of it which she developed in her own way. But, as the most precocious member of the family, it is more than probable that Egypt gave more than she received from the others; and as she acquired new knowledge and skill in the arts—in other words, as she gradually emerged from the Stone phase of culture, while the rest of the world was still unenlightened by the new knowledge—the subtle influence of her example spread far and wide, from neighbour to neighbour, amongst the kinsmen of her people, and slowly raised them also.

Thus Egypt brought her influence to bear on the springs of European civilization, not by the violent imposition of an alien culture, as in the case of Asia at a later age, but by raising the members of her own family group of peoples to a higher plane of knowledge and skill by inoculating them with the germs of her own culture.

The very subtlety of the mode of operation of this domestic influence makes its reality difficult to substantiate by tangible evidence. Nevertheless the fact is certain, as the whole argument of this book will show. But one specific instance may help to convince the reader that I am not dealing merely in vague generalities.

The essential identity of the burial customs of the Early Neolithic Europeans and of the Proto-Egyptians is generally admitted. The former, in fact, were certainly derived from the latter. But the Italian archæologists who have been excavating in Sicily and Southern Italy discovered that a profound change in the mode of burial occurred quite suddenly in Southern Italy at the end of the Neolithic phase, which Professor Orsi has called the "*periodo eneolitico*." This has been the subject of much discussion among scholars, who have been, and in fact still are, quite puzzled and at a loss to explain how such a change can be interpreted, seeing that Italy supplies no transitional stages to bridge the chasm by showing a gradual evolution from Neolithic practices: nor is there any evidence of an alien immigration of sufficient magnitude to have introduced the new customs, especially when we take into consideration the fact that there is nothing that a primitive people clings to so tenaciously as its mode of burial.

Yet in Southern Italy, during the Æneolithic

Period, the old custom of burying the dead, lying bent up on the left side, in shallow holes scraped in the soil, was suddenly given up ; and it became the rule to undertake the laborious task of cutting burial chambers out of the solid rock, or of erecting tombs of stone, in which the corpse was buried in a fully extended position, lying on the back, or slightly flexed lying on the side. No theory of parallel development can be seriously adduced to explain these curious changes, when I state that these *Æneolithic* practices in Italy are an exact reproduction of those adopted by the Ancient Egyptians between the Fourth and Sixth Dynasties. As Egypt not only supplies the evidence of every stage in the gradual evolution of these new methods of sepulture from the earlier type of burial, but also sheds some light upon the motives that impelled the Egyptians to introduce the changes—a process of transformation, moreover, none of the transitional stages of which have come to light elsewhere—we must regard this as conclusive evidence that the *Æneolithic* Italians adopted this custom from their kinsmen in Egypt. and that this could not have happened before 2800 B.C.

Thus Egypt was able to bring her influence to bear upon the springs of European civilization in two distinct ways. There was the community of early customs which was brought about by the movements of the population, so that Egypt as

the inventor of civilization exercised a predominant part in moulding the beliefs, the habits, and the arts of the rest. But this exercised a still more potent influence in that it facilitated the continuation of the intercourse between the sister nations, after they had become scattered; and it permitted one member to adopt new customs from others of the family group in a way that would not have been so easy if they had been aliens the one to the other or harboured suspicions of foreign innovations. Thus the outstanding achievements in culture and the arts on the part of one nation helped to raise the whole family group; and, as the individual people of this group which earliest attained a position of pre-eminence, the Egyptians, by the force of their achievements, were able to lead their European relations out of the wilderness of the Stone Age into the promised land of the higher stage of civilization.

Within recent years a very considerable mass of evidence has been accumulating, which demonstrates the courses taken by various streams of such influence radiating from Egypt, in one case to Syria and Crete, "the forerunner of Greece"; indirectly to Sicily and Italy, which became another centre of irradiation of culture in Europe; and East to Sumer and Elam.

Far-reaching though the effects of the intercourse of the early populations of Northern Africa and Southern Europe were, they by no means

exhaust Egypt's contributions to the factors that moulded European civilization, for, as we have seen in the introductory chapter, the people of the Nile Valley forged the weapons that put an end to the Stone Age, and thus inaugurated "one of the most important steps in human progress" (Read).

The knowledge of copper was no doubt being diffused among the kindred nations of North Africa, and was filtering into Europe by the Mediterranean routes: but the main stream of the influence of the Metal Age, which overwhelmed that continent, certainly came from the East. But, if we admit that Asiatic immigrants were the chief importers of the knowledge of copper, it cannot be denied that they were able to establish themselves in Europe in large numbers at the end of the Neolithic period, and impress their alien culture on that continent, mainly because of their possession of metal weapons and tools, which the Egyptians had invented, and the knowledge of which the Asiatics had acquired from them in their intercourse in Syria. In other words, the passport of the Asiatics into Europe was their knowledge of the use of metals, and this they acquired from the Egyptians in Syria and Asia Minor.

On these grounds alone, that is, in virtue of her positive contributions to the world's civilization, Egypt should occupy a place of special distinction in the temple of anthropology.

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But she has other claims, of a nature vastly differing from those we have been discussing, which give her a unique position in the estimation of the student of mankind. Her active work for civilization was accomplished several millennia ago, and its results will endure for ever: her passive rôle it was to preserve for the edification of modern scholars the records of the remote past, and to enable us of the present time to realize the sources of much of our enlightenment and the manner of its coming. This record, however, is doubly important because Egypt not merely saved the story of civilization but also played the chief part in creating it.

Egypt's geographical position and her climatic conditions, and all that has followed in the train of these natural circumstances, have combined to make her, in a greater measure than any other land, the custodian of the archives of early history.

The exceeding dryness of her climate and the fringing deserts, which became the natural burying-places of her dead, not only preserved the mortal remains of untold thousands of her people and their works in all ages, but also was responsible for suggesting to her people the idea of the necessity of the persistence of the corpse as a condition of the attainment of a continuation of existence after death (see "The History of Mummification," *Glasgow Royal Philosophical Society's Proceedings*, 1910), if it was not also, as seems

probable, responsible for first suggesting the idea of immortality. This in turn impelled the Egyptians to lavish every care on the bodies of their dead, not only for their preservation by artificial means, but also for housing them in a manner befitting this religious conception of their importance, and surrounding them with all the paraphernalia needed for the attainment of a material resurrection. Incidentally this aggrandizement of the tomb and the religious care taken of it were responsible for the origin of the crafts of the carpenter and stonemason and the beginning of the art of architecture, but it also led to the preservation of the most complete record that has come down to us from any people of antiquity—not only literary documents and material illustrative of the people's habits and skill in the practice of the arts and crafts, but also the most valuable kind of anthropological records, namely, the mortal remains of the people themselves in untold numbers, found in association with objects that enable the archæologist to assign to each its date and status. Their custom of representing themselves, often in a most realistic and life-like manner, in statuary and bas-reliefs in tombs and temples, has left us in no doubt as to their appearance in the flesh, even at the most remote ages of the historic period ; and their pride in depicting their foreign triumphs, their captives, and those that brought tribute or suffered defeat in battle,

has preserved a valuable record of the contemporary peoples of antiquity with whom the Egyptians came into touch. In the bones found in the tombs we are also able to detect the influence of this contact with aliens, and to form some conception of the physical characters of the other nations of the Ancient East.

The distinctive rôle that Egypt played in the history of the world was to a great extent the result of her peculiar geographical situation, which was also a potent factor in moulding her own culture into the form it assumed.

Sequestered in the north-eastern corner of Africa, Egypt has been in intimate contact with the Mediterranean littoral and Western Asia from the most remote ages. She was so situated as to be shielded from the danger of being overrun by the peoples of these lands, yet sufficiently in touch with them to feel the stimulus that comes from mingling with people of different traditions and ideas. In other words, Egypt was adequately isolated to be free to develop her own civilization without interference from outsiders, yet at the same time so closely in touch with the world at large to be spared the fate of nations that are utterly isolated and succumb to stagnation.

A narrow ribbon of exceptionally fertile soil, providing an easy and ample means of sustenance, and endowed with a genial and beneficent climate, free from the enervating influence of extreme heat

as well as from the rigours of great cold, the Nile Valley provided an ideal home for primitive man. The exceptionally fertile soil, renewed annually as the gift of the river, yielded rich pasturage for his flocks and abundant crops in return for a minimum of toil : the river and its banks provided an ample supply of easily obtained fish, meat, and poultry : it was indeed a land flowing with milk and honey. It was amidst this plenty and freedom from the trials which Nature and the danger from rival nations inflict upon the inhabitants of most other parts of the earth, that the genius of the Ancient Egyptians took root and flourished, protected from disturbances from without by the broad stretches of insulating desert on each side, and from violent and far-reaching commotion within by the attenuated, ribbon-like form of the land itself.

With no rigours of climate to fight, neither houses nor clothing were matters of vast importance ; with no great dangers of foreign foes there was no need for any special devotion to military practices : with ample means of livelihood easily obtained, the early Egyptian had ample leisure in which to cultivate the arts and crafts, and to attain the early pre-eminence in these accomplishments that was his great distinction.

Living on the natural bridge across the great African desert that led to the home of the Negro, the Egyptian or his southern kindred were the

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first people to come into contact with the Black man, to mingle with him, and to be influenced by his beliefs and customs.

All these circumstances combine to enhance the peculiarly distinctive position occupied by Egypt sixty centuries ago, and to emphasize her unique claims upon the student of Man.

In addition to Sergi's book (*vide supra*, p. 25) useful summaries of literature relating to the matters discussed in this chapter will be found in Professor Ripley's *Races of Europe* and Mr. Keane's *Ethnology and Man, Past and Present*, although both of these writers subscribe to views which are not in accord with the thesis set forth in this book.

CHAPTER III

A RETROSPECT

THE vast monuments scattered through Egypt, bearing the obvious impress of their remote antiquity, have ever excited the wonder of visitors to that country, and stimulated their curiosity concerning the origin and antecedents of the people who created these marvellous works. The classical Greek writers have transmitted to us a great deal of reliable information as to what manner of men these dwellers on the banks of the Nile were in their time : nor did they content themselves with merely recording their observations or retailing stories gathered in Egypt, but often indulged also in speculations concerning the derivation of the Egyptians.

From that time onward a great stream of literature relating to the people of Egypt has steadily increased in volume through the ages ; and every field of investigation has been exploited that could throw any light upon the search for clues as to the origin of the Egyptians. The answers that these different founts of knowledge are said to have yielded are legion. Their variety ranges through the whole gamut of possibilities

into the realm of fantasy ; and their mutual contradictions one of another carry the refutation of most of them.

Not a few writers, like the traveller Volney in the eighteenth century, have expressed the belief that the Ancient Egyptians were Negroes, or at any rate strongly Negroid. In recent times even a writer so discriminating as Ripley usually is has given his adhesion to this view, which I consider to be the most serious blot on his most valuable and interesting memoir, *The People of Europe*. A more numerous group of writers have ranged themselves with Volney's predecessor in exploration, Denon (1710), who believed the Egyptians to be of the same race as Europeans ; but during the last hundred years the idea that the people of Egypt and their civilization came from Asia, either wholly or in part, has always captivated a numerous band of scholars.

There is an infinite variety in the other suggestions as to the source of the Egyptians. Serious writers have imagined them to be immigrant colonies of Celts, whom they supposed, on the literal interpretation of Cæsar's commentaries, to have come from the far west of Europe ; others, again, have spoken of Mongolian affinities, and brought the Egyptians from the remote east ; in recent years the finding of so-called steatopygous dolls in Ancient Egyptian and Nubian graves has been used as an argument that there is some

Bushman element in the Egyptian, or at any rate some affinity with the autochthonous population of the extreme south of the African continent. Comparison of these grotesque caricatures of the female form, which are common in the archaic period not only of Egypt but also of Europe and Western Asia, makes it abundantly clear that they were not intended to portray racial characters, nor were they representations of the condition of localized hypertrophy of fat known as steatopygy. They are simply models of the cowrie-shell, the most ancient symbol of the giving of life (i.e. the organ of birth), anthropomorphized as the Great Mother by the addition of intentionally crude representations of the head and feet to the model of the shell, which provides the thighs and lower abdomen of the grotesque amulet.

Other writers have called the Egyptians "Indo-polynesian," and even so great a biologist as Huxley, whose views were usually distinguished for their remarkably clear insight, fancied that he detected affinities with the aboriginal Australian—a statement that Owen lost no time in controverting. There is no limit to the relationships that have been suggested with Arabs and other Semites, Libyans and their allies, and, in fact, with every one of the peoples who have lived in neighbouring lands.

Hence, if we take cognizance of those who have

given still freer rein to their imaginations, and, confusing race and culture, speculated on the possibility of bonds of union linking Ancient Egypt and South America, we find that hardly any spot in the habitable earth has escaped being claimed by some writer or another as the home of the ancestors of the Egyptians, as the habitat of a population linked by bonds of affinity to them, or as the source of some element in their culture.

But before the end of the nineteenth century most historians had deserted this realm of cloudy speculation and idle fancy ; and the problem had become circumscribed within the limits of the questions, (*a*) whether or not the Egyptians were autochthonous in the Nile Valley, and (*b*) to what extent, if at all, were they indebted to Western Asia and Central Africa for the materials or the inspiration of their distinctive culture ?

In the middle of the nineteenth century the researches of philologists and the discoveries of archæologists were commonly supposed to have lent support to the kind of interpretation most people drew from the Biblical story of the Garden of Eden and the scattering of mankind after the Deluge. The idea was fostered that all races of mankind had set out from some spot in Mesopotamia, and had become scattered throughout the earth, carrying with them ready-made, as it

were, all their arts, sciences, languages, and religions. From this supposed cradle of civilization Europe was said to have received not only her languages and her civilization, but even her population ; and it is not surprising that Ancient Egypt, being so much nearer to this Western Asiatic centre of culture, both in place and time, should have been looked upon as being at least as deeply indebted to Asia, for her population as well as for her knowledge, her language, and her general enlightenment.

Even such eminent scholars as de Rougé, Heinrich Brugsch and Ebers, among many others, claimed that Egypt derived her language as well as much of her culture and knowledge of the arts from Asia ; and Hommel and others went much further, and claimed that the whole Egyptian civilization was Babylonian in origin. Among recent historians and archæologists there are comparatively few who do not make some demand on Babylonia in their attempts to explain Egypt's early pre-eminence in the arts and culture (see, for example, Montelius, and S. Langdon, *Nature*, 1921, p. 315).

De Morgan and his collaborators claim that the Ancient Egyptian language and mode of writing, the importation into Egypt of the knowledge of metals, and of such crafts as brick-making and tomb-construction, and even the fauna and flora of the country in ancient times, all point to

Babylonia as the place where the roots of Egyptian civilization should be sought.

But, under Dr. Reisner's critical analysis of the foundations upon which these speculations were supposed to have been based, practically the whole of the elaborate edifice has tumbled to the ground (see also the article on Anthropology in the *Encyclopædia Britannica*, 12th Edition, 1922, p. 149).

He has proved the indigenous origin of Egyptian civilization in the Nile Valley, and has revealed the complete absence of any evidence to show, or even to suggest, that the language, the mode of writing, the knowledge of copper, or the distinctive arts and crafts were imported.

But, as Meyer has said, there must have been some intercourse between the ancient Empires of Egypt and Babylon, and some give and take in ideas and in material. No population living on a great continent can ever be so hedged around as to be free from the influence of other peoples; and, in spite of the geographical barrier imposed by the great Syro-Arabian desert thrust up between Egypt and Babylonia—a buffer against free intermixture—there must have been some contact between the two peoples. To quote Meyer again, it is certain that they must have met in the markets of Syria as well as in the tents of the Bedawin of Arabia. In Chapter V I shall return to the consideration of this problem.

Schweinfurth argued that the "invaders" of Egypt—the stereotyped phrase used by so many writers, tacitly assuming as a fact the idea of an immigration into Egypt—came from Southern Arabia (Sabæa or Hadramut), across the Straits of the Bab el-Mandeb, thence through Abyssinia and the Eastern Desert into Nubia, from which they spread along the banks of the Nile into Egypt (see map on page 81). The reasons urged in support of this hypothesis were that the sycamore tree and the *Persea*, plants indigenous to Arabia Felix, were cultivated in Egypt from the most remote times, as is shown by inscriptions as old as the earliest Pyramids. But even if it could be proved that these trees were actually brought from Arabia, this can only be used as evidence to prove that there was some intercourse between the Sabæans and the Egyptians, and is no proof of a racial movement. As a matter of fact the writings of the Egyptians themselves (quoted by Meyer and Breasted) contain the account of a trip to the southern extremity of the Red Sea for the purpose of obtaining the products of Punt and the Frankincense Country (Hadramut), which was undertaken during the reign of the first king who is known to have built a Pyramid. It is much more likely that the Egyptians themselves brought these trees from Arabia on such expeditions as these.

Lortet and Gaillard, the most recent writers to discuss the fauna of Ancient Egypt, protest

against the conclusions of Duerst that certain of the domestic animals of Ancient Egypt were brought from Asia ; and they tell us that the animals known to have lived in Egypt at the time of the Ancient Empire were all African, that is, local in origin.

The claim has recently been made that Egypt derived the germs of her civilization, such as the knowledge of agriculture, metal-working and the use of timber, et cetera, from Syria : but the evidence and the arguments adduced in support of this contention are too slight to call for explicit refutation. Egypt exploited the Lebanon region for timber in very early times : but the ships were Egyptian and not Syrian.

Thus the archæological, philological, and biological evidence adduced in support of a foreign derivation of the Egyptians or their culture becomes null and void when submitted to critical examination.

But if the search for suggestions of a foreign extraction leads to negative results, there is a large mass of evidence of the most positive kind to prove that Egyptian culture was a plant of local growth on the banks of the Nile. The forces of a Nilotic environment determined the shape this growth assumed, and brought it to full maturity and fruitfulness, not only without much assistance from without, but in spite of alien interference.

For it will be shown, in the course of my argument, that the remains of the people themselves reveal clear proofs of a not inconsiderable alien admixture. At the same time the graves from which the bones that afford this evidence were obtained reveal a gradual and apparently undisturbed development of the distinctive Egyptian culture. Its growth was too vigorous and sturdy to be warped or deflected by even a considerable foreign element in the people who were instrumental in cultivating it.

These facts, the consideration of which will be my main theme in this book, serve to throw into relief the contrast between the nature of the evidence that the archæologist and the anatomist respectively have to consider in dealing with the problems of history.

There may be profound changes in language, religion, customs, and crafts, with little or no alteration in the racial characteristics of a population. Thirteen centuries ago Egypt adopted the Arabic language and religion without submitting to any appreciable change in the physical characters of her people. A vast number of the immediate descendants of Neolithic Europeans adopted the alien practice of cremation, and all the new habits of the importers of the Bronze Age culture, without losing their racial purity. In a preceding chapter I have referred to the fact that the *Æ*neolithic population of Southern Italy

and Sicily suddenly changed their burial customs and learned new crafts without any alteration of their racial features. The new elements of culture were introduced by a small group of immigrants who did not materially affect the racial characters.

On the other hand, custom and tradition may become so deeply rooted in a country that no amount of alien immigration can weaken the force of their hold upon the people.

The vast numbers of foreigners who settle annually in England or America do not deflect the stream of development in these countries, but become swept along with it, and ultimately become a part of it. In the course of this discussion we shall see that of the Asiatics who played so prominent a part in history at the end of the Stone Age, one band entered Europe and impressed their own practices upon her population, while the other, which filtered into Egypt, had to do as the Egyptians did.

Archæology and Anatomy, therefore, may tell apparently contradictory stories, but the history of a country cannot be read truly unless the evidence of both is given due consideration.

What then, it will be asked, has been done to read the story written in the bones of the Ancient Egyptians?

In a previous chapter I have said that in 1911 it was exactly a century since Blumenbach began the serious study of the physical characteristics

of the Ancient Egyptians. Since then a considerable number of scholars have contributed to the discussion of the significance of the anatomical evidence—in America, Morton, Nott, Gliddon, and Meigs might be mentioned as pioneers ; in France, Perrier, Pruner, Broca, Quatrefages, Hamy, Fouquet, Zabarowski, Chantre, Lortet, and Verneau have made contributions of varying importance ; in German-speaking countries, Carus, Czermak, Virchow, Hartmann, Emile Schmidt, Stahr, and Oetteking may be mentioned ; in England, Barnard Davis, Huxley, Owen, Petrie, Garson, Randall-MacIver, Thomson, Macalister, Karl Pearson and his school of biometricians, Myers, and Keith represent some of the outstanding names of those who have written about the craniology of the Egyptians ; and last, but by no means least, Italy has added the important and highly suggestive writings of Sergi, Biasutti, and Giuffrida-Ruggeri.

From this list, which by no means exhausts the enumeration of those who have studied the somatological aspect of the Egyptian question, it will be apparent that many of the most competent anatomists and anthropologists of the last hundred years have investigated the problem of the origin and affinities of the Egyptian people. In a previous chapter I have explained the reasons why research in this field has been so sterile hitherto. The material that alone could yield

unequivocal evidence on all the conflicting issues in the racial problem has only been obtained during the twentieth century ; and it was not until the detailed investigation of the human remains found in Nubia during the years 1907-11 was undertaken that the full significance of the Egyptian remains began to emerge with any clearness.

Further information upon the issues raised in this chapter will be found further on in this book, and also in Volume II of the Report for 1907-8 of the Archæological Survey of Nubia.

A bibliography and a critical summary of the somatological literature will be found in Dr. Bruno Oettking's *Kranio-logische Studien an Altägyptern*, 1909, the examination of which will convince the reader that I have not exaggerated the sterility of such investigations in the past.

For the discussion of other matters referred to in the above pages see the works of Dr. Reisner (*op. cit. supra*) and Professor Eduard Meyer's *Geschichte des Altertums*, 2^{te} Auflage, 1^{ster} Bd., 2^{te} Hälfte, 1909 ; also the memoirs by Dr. W. H. R. Rivers, "The Contact of Peoples," *Essays and Studies presented to William Ridgeway*, 1913, p. 474 ; and "The Aims of Ethnology," *Psyche*, 1922, p. 118.

CHAPTER IV

THE PROTO-EGYPTIANS

THE student of Egyptian anthropology can add yet one more to the long series of favourable circumstances already enumerated that make for a completeness and precision in his investigations, to which workers in other less favoured fields cannot attain. The hot, dry sands of Egypt have preserved through a span of more than sixty centuries the remains of countless multitudes of the earliest people known to have dwelt in the Nile Valley ; and not the mere bones only, but also the skin and hair, the muscles and organs of the body ; and even such delicate tissues as the nerves and brain, and, most marvellous of all, the lens of the eye, are available for examination to-day. Thus we are able to form a very precise idea of the structure of the body of the Proto-Egyptian.

From the stomachs and intestines of these prehistoric people I was able to recover large quantities of food materials, in fact, the last meals eaten before death, which Dr. Fritz Netolitzky, of Czernowitz, kindly undertook to examine. After years of most laborious and highly skilled

investigation he has been able to discover not only the precise nature of the prehistoric diet, but also something of the mode of preparation of the food for consumption.

Almost every sample contained husks of barley, and in about 10 per cent of the specimens husks of millet could be identified with certainty. The millet that was eaten by the earliest Predynastic Egyptians was neither *Panicum miliaceum* nor *Setaria italica*, but a species that is no longer cultivated, *Panicum colonum* (Linn.).

The finding of millet is especially interesting, because, so Dr. Netolitzky informs me, Buschan and Hoops have denied that it was used in Egypt. The species found in these bodies is most nearly related to *Panicum frumentaceum*, which is now cultivated only in the East Indies, and is possibly a cultivated form of *Panicum colonum*, the range of distribution of which is from North Africa to Southern Asia.

Root-tubers of *Cyperus esculentus* were found both in the intestinal contents and in pots placed in the graves alongside the bodies. These tubers were of very small size, which Dr. Netolitzky regards as evidence of either the utilization of the wild plant or the beginning of its cultivation. Remains of other plants that had been employed either as food or drugs were also found.

Amongst the alimentary material obtained from the bodies of a people who made the first

metal fish-hooks, it is not surprising that Dr. Netolitzky found abundant remains of fish. The fact that fish-scales and bones were frequently swallowed enabled him to identify the species used for food as *Tilapia nilotica*.

Fragments of mammalian bone found amongst the contents of the stomach confirm this evidence that the prehistoric Egyptians were not vegetarians. Moreover, we know that these people had domesticated sheep, goats, and cattle, and they delighted in depicting the chase and the trapping of gazelles and various antelopes.

The occasional presence of the remains of mice in the alimentary canals of children, under circumstances which prove that the small rodent had been eaten after being skinned, is a discovery of very great interest, for Dr. Netolitzky informs me that the body of a mouse was the last resort of medical practitioners in the East several millennia later as a remedy for children *in extremis*, as it still is in Europe.

If we want to add to such sources of information and complete the picture of the early Egyptian and appreciate his mode of thought, he can be found re-incarnated in his modern descendants with surprisingly little change, either in physical characteristics or mode of life, to show for the passage of 6000 years. For in many villages, especially in the Thebaid, that are still untouched

by the disturbing influences of the tourist or the man of commerce, the visitor may find to-day, thinly disguised by a slight veneer of Moham-medanism or Christianity, as the case may be, real representatives of the Proto-Egyptians, living in this twentieth century of the Christian era a life not very different from that of their remote ancestors more than twice twenty centuries before that era began.

The geographical conditions have helped to shield Upper Egypt from the fate that has befallen most other countries, of being overrun at some time or other by sudden and overwhelming waves of invaders, displacing or mingling with the population, and disturbing the habits of the country.

The Thebaid is not only protected on each side, east and west, by the insulating desert (see map on page 97), but also shielded from the full force of foreign aggression by the long stretches of narrow territory north and south of it, which must be traversed before the invader can reach it. Thus any wave of conquering invaders of Egypt, however powerful, and from whatever direction it may come, will be reduced to the merest ripple by the time it attains Upper Egypt, which has thus been spared the effects of any really devastating storms.

Although alien elements from north and south have been coming into Upper Egypt for fifty

centuries, it has been a process of percolation, and not an overwhelming rush ; the population has been able to assimilate the alien minority and retain its own distinctive features and customs with only slight change ; and however large a proportion of the population has taken on hybrid traits, resulting from Negro, Arab, or Armenoid admixture, there still remains in the Thebaid large numbers of its people who present features and bodily conformation precisely similar to those of their remote ancestors, the Proto-Egyptians.

It was my good fortune to have had the opportunity, in my capacity as Professor of Anatomy in the Cairo School of Medicine, of studying the structure of these modern people at the same time as I was engaged in dissecting their Pre-dynastic ancestors, and it was almost a daily experience during those nine years to find features that served to distinguish modern Egyptians from other peoples repeated in the Proto-Egyptian remains and vice versa.

Our information concerning these earliest inhabitants of the Nile Valley has been acquired from the study of the contents of many thousands of their graves, found in cemeteries scattered in every part of Egypt and Nubia so far examined. Such graves have been known certainly for more than two centuries, for Thomas Greenhill, writing in the year 1705, refers to them : but their systematic examination was not begun until 1894,

and it was not until the dawn of the present century that the archæological evidence relating to them was put into order and became sufficiently accurate to justify any reliable inferences being made from the human remains found in them.

When it was definitely established that the age of these graves was anterior to that of the First Dynasty they were called "Predynastic" or "Prehistoric."

Among these Predynastic graves it was obvious that some were immediately antecedent to the First Dynasty, and hence were labelled "Late Predynastic," whereas others, more primitive and distinctly older than the rest, were called "Early Predynastic." It is convenient to distinguish a "Middle Predynastic" group intermediate in age between these two extremes: it merges without any well-defined boundaries into the Early and Late periods. The people whose remains were found in these Predynastic graves I shall call "Proto-Egyptians," a term which I believe was coined by Sir Arthur Evans.

My knowledge of the physical characteristics of the Predynastic people was acquired mainly from the study of the remains found by the Hearst Expedition of the University of California, under Dr. Reisner's direction, at Naga-ed-dêr (see map on page 97), about one hundred miles north of Thebes in Upper Egypt. This cemetery was excavated by Mr. Albert M. Lythgoe. I have

also examined material found in the same neighbourhood by Dr. Randall-MacIver at El Amrah, near Abydos: and a large series of skeletons found in the course of the Archæological Survey of Nubia.

Dr. Reisner's report upon the latter series has supplied most of the archæological information given in this chapter.

The Early Predynastic graves consist of shallow pits of a broad oval or rectangular form, scraped in the gravel or fine yellow-grey alluvium, immediately beyond the area of cultivation. They vary in length from, roughly, about $2\frac{3}{4}$ to 7 feet, and in breadth from 2 to 5 feet, and the original depth was anything between $2\frac{1}{2}$ and 4 feet. The direction of the long axis of the graves was not very constant in the earliest period, but became more regular in Late Predynastic times, being parallel to the river, as a rule, throughout the whole prehistoric period.

The body was buried lying usually upon the left side, with the arms and legs loosely flexed, the hands being between the knees and the face. The head was usually directed toward the south, or what these primitive people considered south; but, as they took the river for their guide, and made their graves parallel to its course, it happened that during the various meanderings of the river the "local south" might be at any point of the compass. The grave was usually lined with

matting, to prevent the body from coming into contact with the soil. Matting was also placed upon the body, which, in addition, was often wrapped loosely in goat skins or linen, for even at this remote period in the world's history the Proto-Egyptians were skilled in weaving flaxen cloth of considerable fineness.

With the dead were buried many objects which the deceased had treasured in this life or his friends believed he might need in a future existence: pottery, vessels of stone, slate palettes, ivory figures, beads, occasionally objects made of gold and copper, and knives and weapons made of flint and other stones.

Many excavators imagined that they had discovered evidence in these Predynastic graves of strangely barbarous customs, such as cutting up and otherwise mutilating the dead body or even signs of cannibalistic practices. But it is now known that the disturbed condition in which many Proto-Egyptian graves were found is evidence, not of ghoulish burial customs, but of the handiwork of the prehistoric grave-robber, and in some instances of the destructive action of small necrophilous beetles.

There is ample evidence to prove that the Egyptians held the bodies of their dead in great respect, even though the tomb-robber in all ages and the unskilful embalmer in Ptolemaic times often overcame their scruples against the desecra-

tion of the corpse for the sake of gain or to hide the evidence of their unskilfulness respectively.

Like his successors in the Nile Valley, at every epoch the Proto-Egyptian was much addicted to fencing with sticks, like the modern *naboot*; and the frequency of fractures of the forearms indicates that this exercise was not always a mere amusement. The high proportion of women who had had their arms broken in this way, while fending a blow from a stick, seems to suggest that the men had definite ideas concerning the maintenance of discipline amongst their women-kind, and were not restrained by any feeling of chivalry from exerting their authority.

At the same time women received like treatment to the men in burial: their bodies were interred in the same cemeteries, and received just as much care as those of the men.

The Proto-Egyptian was a man of small stature, his mean height, estimated at a little under 5 feet 5 inches in the flesh for men, and almost 5 feet in the case for women, being just about the average for mankind in general, whereas the modern Egyptian *fellah* averages about 5 feet 6 inches. He was of very slender build, for his bones are singularly slight and free from pronounced roughnesses and projecting bosses that indicate great muscular development. In fact, there is a suggestion of effeminate grace and frailty about his bones, which is lacking in the more rugged

outlines of the skeletons of his more virile successors. Nevertheless, his limb-bones display those characteristics commonly found in the Proto-Egyptian's European contemporaries (who were still in the Neolithic Age), which are commonly supposed to indicate great muscular strength : I refer to the peculiar lateral flattening of the tibia (platycnemia) and *pilastre* of the femur, as well as flattening of the upper end of its shaft, platymeria. It is probable, however, that the life of constant activity led by this bootless generation of primitive mankind may be a sufficient explanation of these and other features of the limbs which are common to the Proto-Egyptians, the Neolithic inhabitants of Europe, and many uncivilized people of the present day. A special interest attaches to these peculiarities of human structure in Egypt : in a large part of the modern population, in whose veins there flows the blood of their remote prehistoric forerunners in the same locality, and who pursue similar modes of life, these structural traits usually supposed to be distinctive of prehistoric times also persist with remarkable frequency.

It is of some interest to note that the atrophy and fusion of the bones of the small toe, often ascribed to the wearing of boots in modern times, seem to have been as common in this bootless generation of mankind sixty centuries ago as it is now.

The hair of the Proto-Egyptian was precisely similar to that of the brunet South European or Iberian people of the present day. It was a very dark brown or black colour, wavy or almost straight, and sometimes curly ; but it presented no resemblance whatever to the so-called "woolly" appearance and peppercorn-like arrangement of the Negro's hair.

In the majority of the bodies examined the hair had been allowed to grow fairly long in both sexes ; but the occasional discovery of small balls of cut hair, placed beside the body in the grave, and the finding of men with short hair, suggest that the barber's occupation may have been inaugurated even in these remote times.

As a rule the facial hair in the men was allowed to remain : but when we recall that almost from the commencement of the Dynastic period a clean-shaven face became the universal fashion throughout Egypt, it is not altogether surprising to find, even in this Early Predynastic cemetery at Naga-ed-dêr, an occasional individual with a shaven face.

It is fortunate for us, however, that such cases are rare, for the mode of arrangement and the relative abundance, or the reverse, of the facial hair afford evidence of great value in appreciations of racial affinities.

Like all his kinsmen of the Mediterranean group of peoples, the Proto-Egyptian, when free from

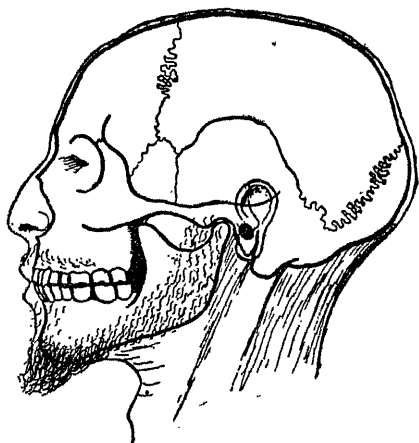


FIGURE 1.—Profile view of an Early Predynastic skull from Naga-ed-dér (Hearst Expedition). Beard and soft parts drawn from other specimens from the same site.

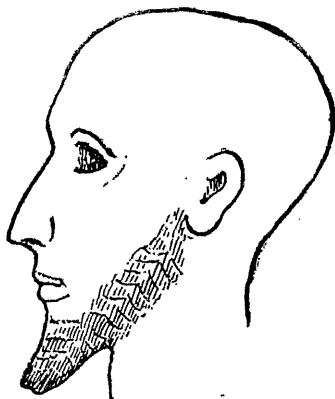


FIGURE 2.—A Proto-Egyptian as represented in a portrait statuette by a contemporary artist (*circa* 3400 B.C.). From Hierakonpolis, after Quibell.

alien admixture, had a very scanty endowment of beard and almost no moustache. On neither lip were there ever more than a few sparsely scattered hairs, and in most cases also the cheeks were equally scantily equipped. But there was always a short tuft of beard under the chin, and occasionally this area of thickly-implanted hair spread laterally from the chin-tuft along the margins of the jaw and up in front of the ears. Thus the distribution of the facial hair found in the actual bodies closely resembles that represented by the Proto-Egyptian artists in the ivory statuettes from Naqada and Hierakonpolis and upon the well-known carved plates (see next chapter). Several writers have supposed that these archaic statuettes were intended to represent men with long pointed beards: but comparison with the actual desiccated heads of the Proto-Egyptians themselves shows clearly that the long pointed chin, so commonly found in these people, will give the same appearance when prolonged by even a small apical tuft of hair, such as is found actually adorning it in the Naga-ed-dêr bodies.

At the same time the fact that the facial hair was chiefly concentrated in the form of a chin-tuft explains the convention adopted in Dynastic times of representing the Egyptian with a chin-beard only, often of exaggerated dimensions. For, as Ripley says in speaking of the fashions of shaving among the Basques, "all this fits in perfectly

with much of the evidence brought forward by Westermarck, in his *History of Human Marriage*, serving to show that the fashions in adornment which prevail among various peoples are largely determined by the characteristics they naturally possess" (*op. cit.*, p. 203).

There is a considerable mass of evidence to show that there was a very close resemblance between



FIGURE 3.



FIGURE 4.

Ancient Egyptian representations of Arabs (circa 2000 B.C. and 1500 B.C. respectively).

the Proto-Egyptians and the Arabs, before either became intermingled with Armenoid racial elements. The difference in the mode of representing their facial hair in all except the most archaic monuments was due, in my opinion, mainly to the fact that the Egyptian had adopted the habit of shaving, whereas the nomadic Arab had not done so, and thus was represented in much the same way as the Archaic Egyptian was in the

habit of portraying himself, i.e. with a small beard reaching from the chin along the jaws in front of the ears. He was shown either without a moustache or with only a very sparse labial adornment.

In a later chapter I shall return to the discussion of this question of fashion in beards, because it throws a very suggestive light upon the racial problems of Western Asia in its relation to Egypt.

The Proto-Egyptians presented a marked contrast to the Armenoid people of Western Asia, not only in their relatively scanty facial hair, but also in the glabrous character of their bodies generally. The body hair was very poorly developed in both sexes.

The desiccated bodies examined at Naga-ed-dêr supplied me with decisive evidence that, even amongst the earliest Predynastic people whose remains have been preserved for examination, it was already customary to circumcise the men. There is reason to suppose that the operation was performed at the age of puberty, as an initiation to manhood, and at first was not true circumcision, but what Dr. Rivers calls "incision," i.e. merely slitting the foreskin and not amputating it. All the evidence afforded by the scenes upon the inscribed slate palettes, and in the tomb of Ankhma-Hor at Saqqara, where the operation is represented (see Capart, *Une Rue de Tombeaux*, 1907, Pl. LXVI), supports the evidence supplied by the examination of the bodies, which are more than

a millennium older than these pictures graven 2600 years B.C.

There is nothing to indicate or even to suggest that any operation of a similar nature was practised upon girls.

Although the appearance of certain painted dolls found in archaic graves has led certain writers to assume that tattooing was customary in Predynastic times in Egypt, no positive evidence of this or any other form of mutilation of the skin has ever been revealed by the direct examination of the bodies of the Proto-Egyptians.

Nevertheless a fact of some significance has come to light. In the course of the Archæological Survey of Nubia, Mr. Firth found a number of bodies of Nubians of the time of the Middle Empire (*circa* 2000 B.C.) with definite scarring; and the patterns pricked upon the skin of these desiccated bodies were identical with those painted on the dolls buried with them.

No evidence has yet come to light to suggest that the Egyptians pierced their ears for the insertion of rings or other ornaments earlier than the time of the New Empire (*circa* 1600 B.C.).

There is, of course, no direct evidence as to the colour of the skin and eyes of the Proto-Egyptians: but there can be no doubt whatever that their dark hair was associated with dark eyes and a bronzed complexion. In support of this, there is not only the evidence that their immediate

successors and undoubted descendants were accustomed to represent themselves in wall-pictures and statues with black eyes and ruddy-brown skin ; but also all of the living populations of Africa, Asia, and Europe most nearly related to the Egyptians, both by geographical propinquity as well as by racial affinity, have brown skins and irises of a black or dark brown colour. As the living populations of North-Eastern Africa, which most nearly resemble the Proto-Egyptians in structure, have a coppery-brown skin-colour, we must look upon the old Egyptian custom of representing men of their nationality with red skin as being something more than a mere convention.

The orderly arrangements for inhumation and the burial with the dead of numerous valuable and useful objects, as well as food, point to a belief in a future life. I have suggested (" The History of Mummification in Egypt," *Proc. Roy. Phil. Soc. of Glasgow*, 1910) that it must be something more than a mere coincidence to find, in a land where the bodies of the dead were so often preserved in an incorruptible form by the forces of Nature, that it should have become a cardinal tenet of the religious beliefs of the people to look upon such preservation as a condition essential for the attainment of a continuation of existence after death. And there is evidence from other sources to show that other natural circumstances incidental to

their life in the Nile Valley and the communication which it afforded with the heart of Africa helped to shape the customs and beliefs of the Egyptian people.

Although we can learn a great deal about the appearance and mode of life of the Proto-Egyptians from the study of the soft tissues preserved in their graves, the study of their bones assumes a greater importance, because this enables us to compare them with the remains of other populations, both in Egypt and elsewhere, which consist of nothing else than the mere skeletons.

At the outset of my remarks on the story the bones have to reveal I should like to emphasize a statement made by Professor Giuseppe Sergi in his remarkable book on *The Mediterranean Race*, to which I have already referred. So striking is the family likeness between the Early Neolithic peoples of the British Isles and the Mediterranean and the bulk of the population, both ancient and modern, of Egypt and East Africa, that a description of the bones of an Early Briton of that remote epoch might apply in all essential details to an inhabitant of Somaliland.

Over the whole of this wide domain the people were long-headed brunets of small stature, glabrous, and with scanty facial hair, except for a chin-tuft; with bodies of slender habit and a tendency to platycnemia, and *pilastre* and platy-

meria of the femur, and perforation of the coronoid fossa of the humerus. The skull is distinguished in all of these peoples by being long, narrow, ill-filled (Cleland), and a tendency to assume a pentagonoid (coffin-shaped) or ovoid form, when viewed from above; the eyebrow-ridges are poorly developed or absent; the forehead is narrow, vertical, smooth, and often slightly bulging; and the occiput is bulged out into a marked prominence of the back of the head. The forms of the orbits are either horizontally-placed ellipses or small circles, and their margins are thin. The cheeks are narrow, and their bony supports (zygomatic arches) flattened laterally. The nose is only moderately developed: it is small, and relatively broad and flattened at its bridge. The chin is pointed and the jaw very feebly built. The face as a whole is short and narrow: it is ovoid in form and straight, although there is often some slight projection of the jaws in the African members of this widespread group of affiliated peoples. The teeth are of moderate size or small. The whole skeleton is of slight and mild build, and has a suggestion of effeminacy about it.

Even if the burial customs and the ceramic and other remains did not supply us with conclusive evidence of a confirmatory nature, the bones alone would provide sufficient data to enable us to assert with the utmost confidence that the

populations which occupied North-East Africa, the whole Mediterranean littoral, the Iberian Peninsula, Western France, and the British Isles before the coming of copper were linked together by the closest bonds of affinity. They were certainly the offspring of one mother, and if we must decide whether the original home of this maternal population was north or south of the Mediterranean there are considerations of a biological, no less than of an archæological nature, derived from the Neolithic graves of the Mediterranean islands and the northern littoral, which incline the balance strongly towards the African shore as the place where the Mediterranean Race acquired its distinctive characters, physical, mental, and moral, at the same time that it took on a brunet complexion.

Whether the tall, blond, long-headed North European (Teutonic or Nordic) Race is linked to the small, dark, long-headed South European Race does not concern us in this discussion, for if all the centuries that separate us from the Early Neolithic Age in Britain have not availed to change its small dark brunets into tall blonds, the cleavage between these two dolichocephalic Races must have occurred long before the period that comes within the scope of this work. However, I would follow Sergi so far as to admit as an axiom that a much more intimate relationship, both physically and culturally, links the short

brunet of South Europe to the tall blond of North Europe than that more remote bond of the common ancestry of all mankind, which ultimately links these two Races to the utterly alien Armenoid, broad-headed, long-bearded people, whose home I believe was certainly in Asia, far removed from the habitat of the dolichocephals of Europe, before they separated into Southern (probably African) and Northern branches.

I have referred to these general questions for the purpose of throwing into relief the racial distribution on the east of Africa. There is a very suggestive mass of evidence, admirably summarized by Professor William Z. Ripley in his *Races of Europe*, which goes far to prove that originally a short, brunet, long-headed population occupied the whole southern littoral of Asia from the Red Sea as far as India (see map on page 81). The study of the physical characters of these people, whether we call them Arabs, Southern Persians, or any other national name, reveals a whole series of other features curiously similar to those exhibited by the Proto-Egyptians and their relatives of the Mediterranean group.

There is certainly a closer bond of affinity between these dwellers on the shores of the Indian Ocean and the Mediterranean respectively than that linking the latter to the Nordic Race dwelling on the shores of the Baltic.

It is clear that we cannot call this group

“ Hamitic,” because it includes such Semites as the Arabs ; nor can we call it “ Mediterranean,” for its domain has been extended far beyond the limits of the Middle Sea, and also its distribution is not that assigned by Sergi to his Mediterranean Race.

For the sake of convenience I shall refer to this widespread group of peoples as the “ Brown Race,” in reference to the distinctive colour of their skin.

For further information regarding the subjects discussed in this chapter the reader is referred to the works of Reisner, Sergi, and Ripley cited in the first three chapters.

For the therapeutic use of the mouse see Dr. Rendel Harris, *The Ascent of Olympus*, 1918.

For the interpretation of the influence of the desiccation of the corpse in prompting the invention of mummification and certain religious beliefs see my book *The Evolution of the Dragon*, 1919.

CHAPTER V

EGYPT'S RELATIONS WITH THE SOUTH

THERE is a class of scholars who are constantly obsessed with the idea that the Egyptians must have marched into the Nile Valley from some foreign land at a time within or immediately before the historic period, in spite of the certainty that such a desirable spot must have been occupied by primitive man from the time of his first dispersal throughout the wide world, which occurred many tens of thousands of years before the times with which we are concerned in this book.

It is, perhaps, not without interest to recall in this connection that Egypt, in the even more remotely distant past, was the habitat of the first Simian family that definitely branched off from the other members of its Order and became Anthropoid; for in the Oligocene fossil *Propliopithecus Haeckelii*, discovered in the Egyptian Fayum and described by Schlosser, we have the earliest representative of the phylum common to Man and the Anthropoid Apes. Ever since that remote date Africa has remained the home of the most distinctively Man-like Apes; and to-day

Man's nearest relatives, the Gorilla and the Chimpanzee, inhabit that continent in a territory which they share with the Negro and formerly with the most Ape-like species of our Genus at present known to us, *Homo rhodesiensis*. There is still something to be said for Darwin's view that Africa may have been the original home of mankind.

But this question does not concern us here, for tens of thousands of years before the events occurred which we are discussing in this book Man was in occupation of the whole earth, and had wandered hither and thither times without number. It is surely ludicrous to search the coast of Libya on the west, or the shores of Palestine and Arabia on the east, for the footprints of the Egyptians seeking their land of promise.

In a previous chapter I have referred to the absence of all evidence for such a racial movement, which on a priori grounds is quite inconceivable.

But when we look towards the south a problem of a nature quite different from the relations with east and west presents itself. Egypt forms only a small fragment of the long bridge of fertile land that spans the vast North African desert and links the shores of the Mediterranean with the heart of Africa and the home of the Negro (see map on page 81). Moreover, in Predynastic times the extent of habitable land in Egypt was only a fraction of what it is now, for a large part of it

consisted of marshes, which had to be drained before the whole plain could be occupied.

There is every reason for believing that the whole of the Nile Valley was occupied during the fourth millennium B.C. by a population which was necessarily scattered, because the habitable land was so limited in extent. The people living in the milder and more fertile land north of the First Cataract advanced more rapidly in the paths of civilization, not only by virtue of these naturally advantageous circumstances, but possibly also by reason of their contiguity to the great midland sea, which enabled them to receive impressions and exchange ideas with other peoples, and in this intercourse to obtain the stimulus for greater achievements.

Whatever the reason may have been, the historical fact is well attested that by the commencement of the fourth millennium B.C. the people of Egypt had raised themselves to a higher plane of culture than their neighbours. One of the first uses to which they put their newly-acquired knowledge and skill was the draining of the marshes and the consequent extension of their habitable and cultivable territory. Incidentally they learned to appreciate the possibilities of agriculture and devised the practice of irrigation.

At about the same time that this was happening the people of Upper Egypt were beginning to realize the strength of the weapons the discovery

of copper-casting had placed in their hands ; and this knowledge bred the courage which enabled them to vanquish the people of Lower Egypt and unite the White and the Red Crowns of the two kingdoms under one sovereignty.

The use of metals also gave a powerful stimulus to the development of art and architecture, for it gave birth to the crafts of the stonemason and the carpenter, of the sculptor and the carver of hieroglyphics. It was the dawn of a new era of art and learning.

All these historical events drew into Egypt a host of people from beyond her gates. The draining of her marshes in Lower Egypt especially attracted the people from the relatively sterile south to the milder and more fertile territories thus rescued ; and the political events to which I have referred, with all the social and economic results that followed in their train, were additional magnets, which drew into Egypt immigrants from all the neighbouring lands, and especially from the more southern parts of the Nile Valley.

Before I discuss the evidence in support of this contention, let me refer to the later waves of this great movement from south to north.

The recently acquired knowledge of the early ethnography of Nubia, which has been rescued in the course of the Archæological Survey of that country, has familiarized us with an epoch that lasted until about 2800 B.C., when Egypt and

Lower Nubia were occupied by one uniform population in the same stage of culture. But from the time of the Third Egyptian Dynasty onwards a great contrast becomes apparent in the development of the two countries, respectively north and south of the First Cataract.

When this information first came to light (see First Bulletin of the Archæological Survey of Nubia, 1908) it was interpreted as meaning that while Egypt advanced with rapid strides towards the attainment of her greatest artistic and cultural triumphs, Nubia not only failed to keep pace with her, but actually fell away from the standard of knowledge and skill she had possessed before the times of the Pyramid-builders. This was further explained by the hypothesis that in the competition for the acquirement of the fat lands of Egypt only the weaker brethren were left in Nubia; and these feeble folk were unable to resist the immigration of Negroes, who came up from the south, intermingled with them, and dragged down their cultural attainments to a lower plane.

A more detailed study of the human remains obtained from graves made in Lower Nubia at the time of the Ancient Empire in Egypt has convinced me that a slightly different explanation must be found to account for the known facts.

In the first place practically no *pure* Negroes were found amongst the remains of these people

buried in Nubia during the Ancient Empire, although the population as a whole bears ample evidence of Negro admixture. Presumably this means that the process of mixing did not take place in Nubia, but further south; and that it was the mongrel population and not the Negro element only that came north into Nubia. The difference in culture was not the result of a falling away from a higher standard, but was due in all probability to the fact that the less favourably placed kinsmen of the Proto-Egyptians had not kept pace with them in their acquirement of a higher civilization.

Less than a millennium later another wave of kinsmen of the Proto-Egyptians moved north into Nubia. They were more strongly Negroid than their predecessors, and brought with them a culture more definitely specialized and differentiated from that of Egypt, and more obviously tainted with African influence. These were the people called in our Nubian Reports "Middle Nubians," in reference to the fact that the period of their most characteristic development in Nubia was synchronous with that of the Middle Empire in Egypt (*circa* 2000 B.C.).

Both in respect of their physical characteristics as well as the products of their arts and crafts they show clear evidence of a definite specialization, quite apart from the effects of intermingling with Negroes. Nevertheless their physical traits

no less than their burial customs and ceramic arts clearly demonstrate their derivation from the same source as the Proto-Egyptians. They were certainly kindred peoples, sprung originally from the same parent race.

Thus the new knowledge recently extracted from the graveyards of Nubia has made it abundantly clear that during the fourth millennium B.C. there must have been a series of kindred peoples, scattered along the Nile like beads upon a string, extending far away to the south of Egypt, even unto the land of the Negro. As Egypt's power became consolidated and she entered upon her career of abounding prosperity these southern communities moved northward one by one, and so came within the ken of the student working on the southern frontier of Egypt.

At all times there has been a large group of kinsmen of these settled inhabitants of the Nile Valley who have led the life of roving nomads in the eastern desert. These Beja people are represented at the present day by the Ababda, Bisharin, and Hadendawas. In a sense they have served as links between the Arabs dwelling on the shores of the Red Sea and the people of Egypt and Nubia.

In the account of the northerly trend of the population of the Nile Valley, from the Soudan towards Egypt, which I have been discussing in the previous paragraphs, only the period from

roughly 2800 B.C. to 1500 B.C. has been under consideration. But there is a large series of scraps of evidence which, considered collectively, almost amount to a demonstration that at a still earlier period, in Predynastic times, there was a similar northern movement of the Nilotic population, which was of the nature of a concentration of this people in Egypt.

There is abundant evidence to prove that the distinctive culture of Egypt was indigenous in the Nile Valley. The animals and plants used for food, depicted upon the pottery, or worshipped, were all Nilotic: the customs and beliefs of the people were such as would be developed amidst the special and quite peculiar natural conditions that obtain upon the banks of the Nile, and not elsewhere: in fact, every aspect of the life and activities of the earliest inhabitants of Egypt, with whose remains we are acquainted, bears ample testimony to the fact that, for long ages before the earliest Predynastic period of which any tangible remains have come down to us, the ancestors of the Egyptians must have been living in some part of the Nile Valley.

The abundance of ivory in Predynastic times and the occasional representation of the elephant show that either the domain of the Proto-Egyptians reached as far as the habitat of the elephant or they (the people of Egypt) had free and intimate relations with the inhabitants of the

southern territory. Even at the time of the new Empire and later the people of Nubia as far south as Meroe were surprisingly free from Negro admixture.

It is obvious that the Predynastic Egyptians must have developed their distinctive culture and beliefs in some region north of the junction of the White and Blue Niles, where the elephant and the giraffe did not penetrate: but that they had free and intimate relations with the inhabitants of the elephant-country around the White Nile. Moreover, as the element of Negro that occurs in the remains of the Proto-Egyptian population is so minute, it is obvious that they did not deal directly with the Black man in obtaining their ivory and their knowledge of these strange creatures. Presumably they obtained such commodities through the intermediation of their kinsmen in the south, and that such immigrant dealers in Egypt depicted the elephants and the giraffes with which the contents of Predynastic graves have familiarized us.

In the Sixth Bulletin of the Archæological Survey of Nubia Mr. Firth has expressed the opinion that the Middle Nubians "represent a later wave (greatly modified by Negro influences) of the same race that founded the Predynastic culture in Upper Egypt." He adds the further statement that "the similarity of the incised wares of the Predynastic period to those of the

C-group [Middle Nubians] probably means the application to pottery of a type of decoration which had its origin in patterns scratched or carved on gourds and wooden vessels." "The Predynastic incised ware is by no means common, and is confined to the earliest graves of that period, where it may represent a survival of the art of the more distinctly *African* section of the Predynastic community."

Within recent years many scholars have advocated the view that there is a large element of Negro in the composition of the Proto-Egyptian population, and Ripley, apparently as the result of a misunderstanding of Sergi's views, boldly states that the Egyptian and the whole Mediterranean race are descendants of Negroes !

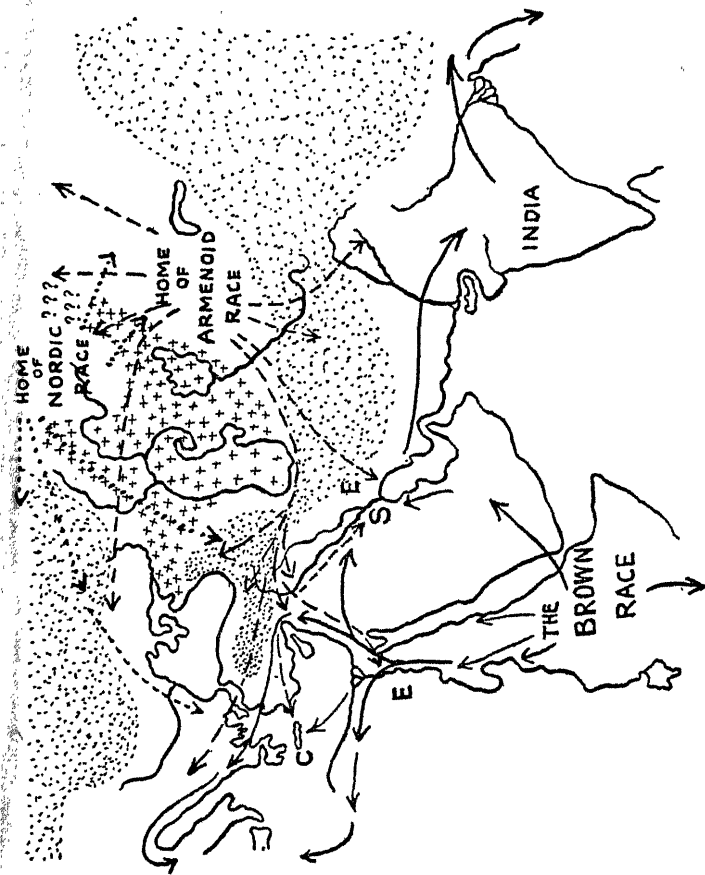
There can be no doubt that in respect of many features the Brown and the Black Races present many points of similarity. Some of these resemblances are no doubt due to the fact that both peoples retain many traits common to them and primitive man ; but other points of likeness cannot be explained in this manner. That there is no close affinity between the two races is shown by an analysis and comparison of the intimate structure of the bodies of representative individuals. In the texture of bone, the architecture of the skull, the nature of the asymmetry of the body and the character of the variations—in these and many other respects there is evidence

of the profound gap that separates the Negro from the rest of mankind, including the Egyptian.

The present distribution of the so-called Hamitic race, and the facts of history and archæology, lend support to the view that the Brown Race, the kinsmen of the Proto-Egyptian and the Mediterranean people, has occupied the territory, where representatives of them are still found, throughout the whole time with which we are concerned in this discussion.

The physical characteristics of the present Nubian, Beja, Danakil, Galla, and Somali population, if we leave out of account the alien Negro and Semitic traits, with which they are now so abundantly diluted, are an obvious token of their undoubted kinship with the Proto-Egyptians. When we consider the multitude of these Hamites and the wide extent of their territory, compared with which Egypt is a very small place, it is inconceivable that the Egyptians can be more than merely one small outlying member of this great group of nations (see map 1, the Brown Race).

That the inhabitants of the African littoral in the vicinity of the Bab el-Mandeb conformed to the same racial type in ancient times is proved by the pictures of the inhabitants of the Land of Punt in Queen Hatshepsut's temple at Dêr-el-Bahri (Thebes). The men of Punt were represented, like the Egyptians themselves, with the chin-tuft type of beard and the conventional



MAP I.

An attempt to locate the area of characterisation of the Armenoid Race in Turkestan at the Glacial Epoch when it was cut off from the domain of the Brown Race by the great ice-wall (dotted lines) and from the Nordic Race by the Aralo-Caspian Sea (indicated by crosses). The lines and arrows are intended to represent the movements of these three races when the great barriers of ice and water were removed.

brick-red skin colour. They conform to the Proto-Egyptian type as regards their facial and cranial features, and at the same time present a close resemblance to the modern Hamitic population of Somaliland, as portrayed by Paulitschke and other ethnologists.

In consideration of all these facts it is not without significance that the Ancient Egyptians were accustomed to speak of the Land of Punt as their homeland. The expeditions to that country in the reign of Queen Hatshepsut were by no means novel undertakings: for, more than a thousand years before her time, it is recorded that King Zoser, of the Third Dynasty, equipped an expedition to go to Punt and the Incense Country (Hadramut) on the Arabian coast to get wood and spices.

At an even more remote date, in Protodynastic or perhaps even in Predynastic times, there must have been some kind of intercourse between Egypt and the Somali region, for upon the ceremonial slate palettes that have come down from the dawn of the historic period in the Thebaid there are represented certain mammals and birds whose habitat is Abyssinia and the adjoining part of Somaliland.

The attempt to interpret the significance of the scenes depicted upon these interesting slate palettes has given rise to considerable discussion, which will be found summarized in the *Proceed-*

ings of the Society of Biblical Archæology for 1909. I do not propose to enter into this field of conflicting interpretations, except to extract from the scenes certain facts that throw light upon the southern relations of the Proto-Egyptians.

Those who have engaged in the discussions concerning these slates hitherto have been led into error by the imperfections in their knowledge of the contents of Predynastic graves. Not being aware of the fact that it was the custom amongst the Proto-Egyptian men of the Thebaid and Lower Nubia to wear a tubular pudendal sheath of leather, suspended around the waist by one or sometimes two bands of rope, Mr. F. Legge, the writer of the article to which I have referred, wrongly assumes that the sheath-wearers represented upon the palettes are necessarily foreigners. Other writers have interpreted the wearing of a slight cheek-beard in addition to the chin-tuft as an indication that the wearer is alien, i.e. an Arab; but from what I have said of the appearance of the unshaven Proto-Egyptian in the last chapter it is clear that such an individual may be, and in most of the scenes undoubtedly is, intended to be an Egyptian.

In most of the scenes represented there can be no doubt whatever that inter-tribal fights between different groups of allied Proto-Egyptian people are being recorded. And as these encounters took place in Protodynastic times, when the sheath of

the earlier people was being superseded by the kilt, so well known by the bas-reliefs and statues of the Ancient Empire, it is not surprising to find one group of warriors wearing the kilt and the other the sheath. Mr. Legge's supposition that the wearers of the leather sheath were slaves has no basis in fact, for we know that it was the universal "dress" of the men in Pre- and Proto-dynastic times in the Thebaid and continued to be worn in Nubia long after the kilt came into vogue in Egypt. In fact it is worn at the present day by the natives of East Africa.

The palette which throws the most interesting light upon the subjects discussed in this chapter is that referred to as No. 6 by Mr. Legge. For in the scenes depicted upon it there is shown the defeat of a distinctly Negroid people, with the characteristic Proto-Egyptian beard and sheath; and in association with animals known to occur only in Somaliland and Abyssinia.

Here, then, is fresh evidence in support of the contention that the kinsmen of the Proto-Egyptians were distributed over the whole extent of Egypt, Nubia, and the Blue Nile, and as far as Abyssinia and the vicinity of the Babel-Mandeb. Moreover, certain facts revealed by the study of the earliest Predynastic graves in Egypt suggest that at about the time those graves were dug there was a concentration in Egypt and Nubia of representatives of the kin-

dred peoples scattered throughout this wide East African domain.

Whether the habit of burying the dead with the head to the south had any reference to this derivation (or partial derivation) from the holy land of Punt, it is not for a mere anatomist to say. But it is perhaps not without some significance that when, during the Early Dynasties, the centre of Egyptian power moved from Abydos in Upper Egypt to Memphis in the north, not only did the thread of Egypt's communications with the south become attenuated, and her intercourse with Western Asia strengthened in volume and in influence, but the manner of orienting the corpse in the grave changed also, and at the same time it became the usual practice to bury the dead with their heads to the north.

Many of these reasons for suggesting intimate relations between Egypt and the Bab el-Mandeb region in prehistoric times are no doubt trivial when considered individually, but their cumulative value amounts to something more than a mere presumption that the kinsmen of the Proto-Egyptian once formed an unbroken if slender thread stretching up the Nile, along the Atbara River and Blue Nile to Abyssinia and beyond to the Somali Peninsula. With only the narrow strait of the Bab el-Mandeb to separate this domain from Southern Arabia, it is safe to assume that there was intimate intercourse

between the peoples upon the African and the Asiatic shores respectively.

The contents of the Predynastic graves in Upper Egypt and Nubia reveal that there must have been a free intercourse between the people living on the banks of the Nile and those of the Red Sea littoral, because marine shells distinctive of the latter habitat were in common use by the Proto-Egyptians, both as dishes for paints and as life-giving amulets.

It is highly probable that even before the close of the Predynastic period the Egyptians were exploiting Southern Arabia and East Africa for resins and incense, as well as for copper and gold. By the time of the Early Dynasties it is practically certain that this littoral exploration had been extended as far as the head of the Persian Gulf. The germs of Elamite and Sumerian civilization were certainly planted in their respective domains by people equipped with the arts and customs of Egypt, who probably travelled in ships of Egyptian invention. That they came by sea is suggested not merely by Sumerian tradition, but also by the two facts (*a*) that the civilization of Mesopotamia originated in the extreme south on the shores of the Persian Gulf, and (*b*) because the ram- or goat-headed Sumerian god Enki—the homologue of the deity Khnum particularly associated in Egypt with Elephantine—acquired a fish's body and tail in Sumer, for the reason

that he is reputed to have come out of the waters of the Persian Gulf. There is now a great deal of corroborative evidence in justification of the reality of this interpretation. Some of it is briefly mentioned in Chapter VIII of this book ; and in the article entitled " Anthropology," which I wrote for the supplementary volumes of the *Encyclopædia Britannica* (1922), there is a much fuller statement of the new evidence (pages 149 and 150) than it is possible to give within the limits of this book, especially the important facts and arguments relating to the painted ceramic wares which have been adopted from M. Edmond Pottier's monograph (" Etude Historique et Chronologique sur les Vases Peints de l'Acropole de Suse," *Mémoires de la Délégation en Perse, Tome XIII, Recherches Archéologiques, 5^{ième} Série*, 1912, p. 27). But it was not merely the making of painted pottery and the burial customs that Elam and Sumer learned from Egypt, but also the arts of agriculture and irrigation, the weaving of linen and the making of bricks, the working of gold and copper, the use of incense and of ships, and the social and religious practices and beliefs. The original cultural outfit of Sumer was essentially Egyptian, and for the most part was brought by sea ; although within a few years it was probably reinforced by new influences coming down the Euphrates from the Amorite country in

Northern Syria, which also derived its culture from Egypt, mainly as the result of maritime intercourse. For the Egyptians at a very early period were exploiting the Lebanons for timber and resins, probably also the Taurus for metals.

For further information upon the problems discussed in this chapter the reader is referred to the already quoted works by Sergi, Meyer, and Keane, and, in addition, to Sergi's Italian treatise on *Africa*. See also Seligman, "Some Aspects of the Hamitic Problem in the Anglo-Egyptian Sudan," *Journal of the Royal Anthropological Institute*, Vol. XLIII, 1913, p. 604.

The classical works on East African Hamites are Munzinger's *Ostafrikanische Studien*, 1864; Paulitschke's *Ethnographie Nordost-Afrikas, Die materielle Cultur der Danakil, Galla, und Somäl*, 1893; and Hartmann's series of memoirs, of which I may mention *Die Nigritier*, *Die Nilländer*, and *Untersuchungen über die Völkerschaften Nord-ost Africas*. These works supply evidence from the southern point of view which is complementary to and corroborative of that from the north, which I have sketched in this chapter.

An interesting but somewhat speculative account of the wider relations of East Africa and Arabia will be found in Barton's *Sketch of Semitic Origins*, New York, 1902; and, of course, Sir Gaston Maspero's *Dawn of Civilization* is a storehouse of information and bibliographical references.

For the evidence pointing to Egypt as the home of the cultivation of barley and to the conclusion that the Egyptians were the inventors of agriculture and irrigation see Cherry, "The Discovery of Agriculture," *Proceedings of the Australian Association for the Advancement of Science*, 1921, a summary of which is given in the article on "Anthropology" in the first of the New Volumes (Vol. XXX) of the *Encyclopædia Britannica* (12th Edition, 1922, p. 148—"The Beginning of Agriculture").

For a discussion of early maritime trafficking see G. Elliot Smith, "Ancient Mariners," *Journal of the Manchester Geographical Society*, 1917.

CHAPTER VI

EARLY RELATIONS WITH ARABIA AND SYRIA

I N the last chapter reasons were advanced to suggest that the Proto-Egyptians were linked by the closest bonds of kinship and a common tradition to the population of East Africa as far south as the neighbourhood of the straits of Bab el-Mandeb ; and earlier in this book I have referred to the generally accepted fact that the population of Egypt was also related by equally close ties to the peoples living along the whole extent of the North African littoral. Between the contiguous links of this extensive chain of affiliated groups a constant process of give and take must have been in operation for long ages ; and not an exchange of ideas and materials only, but also of flesh and blood.

From a comparison of the various Nilotic members of this series of sister-populations there seems to be definite evidence of a specialization in structure distinctive of each. Thus, if the three groups of people who occupied Nubia in succession between 4000 B.C. and 1500 B.C., which the archæologists distinguish by the letters A, B, and C respect vely, be compared, and the increasing

element of Negro in the B- and C-groups be left out of account, a peculiar cast of face, not easy to define, much less to express in figures, seems to characterize the C-group people and enable us to distinguish it from both the B- and A-groups. No doubt if representatives of each member of the extensive series of communities of the Brown Race could be compared it would be found that each of them had acquired distinctive traits. The narrow-headed brunet of the British Isles, for example, has become very different in many details of his bodily structure and mental fibre from the East African, however close may be the likeness in the more general characters of cranial and facial forms, general build of body, and other distinctive racial features.

If to the variations, which naturally occur in each community settled in one particular locality, there be added the changes effected by the forces of another environment in representatives of neighbouring communities, who immigrate into that locality, a much wider element of heterogeneity will be the result. For example, if the contention urged in the last chapter be correct, and it is admitted that a series of affiliated peoples was grouped along the Nile from the Mediterranean to Abyssinia and beyond, it may be taken as an axiom that each community—say those of the Delta, of Upper Egypt, of Nubia, of the Abyssinian Highlands, and of the Somali coast—

exposed to widely differing environments, leading varied kinds of lives, and subsisting on a diversity of diets, would become modified in structure and function as the result of these contrasts in their circumstances. If, then, there was a concentration in Egypt of people, drawn from this wide domain, such as I have postulated (in the last chapter) as having actually happened in early prehistoric times, we should have introduced in Egypt a heterogeneity produced by a variety of environments, without having brought into the country any really alien racial element, seeing that all the immigrants were blood relations of the autochthonous people.

In the preceding paragraphs I have wandered into the realms of speculation in the hope of elucidating thereby certain facts concerning the physical traits of the earliest known Predynastic population of Egypt. So far as their physical characteristics are concerned the Predynastic Egyptians are probably the nearest approximation to that anthropological abstraction, a pure race, that we know of. About two per cent of them are definitely Negroid, and perhaps another three or four per cent display features which suggest the influence of Negro admixture, but in so undecided a manner that it would be rash to dogmatize concerning them. Among undoubted Predynastic remains I have never seen a single individual that I should feel justified in branding

as foreign, although there are some that suggest doubts as to their racial purity. Of course, I omit the Negroid cases from this statement. Amongst the so-called "prehistoric" crania unearthed by M. de Morgan in the Thebaid, and also amongst the archaic series found by Professor Flinders Petrie and Mr. Quibell near Naqada and Balläs, I have found definitely alien (Armenoid) individuals; but we have no evidence to show whether they were Pre- or Protodynastic.

But amongst the Predynastic series there are a certain number of crania which, though conforming on the whole to the recognized Proto-Egyptian canons, present some features simulating the average condition of some alien race; and in such cases one is not justified in asserting either that such cases are the result of alien admixture or merely the extremes of the variations occurring within the unmixed population. The possibility of a wider range of variability having been brought about by intermingling within the circle of the affiliated peoples makes the difficulty of coming to a decision upon this matter all the more difficult. In skeletons obtained from graves of a slightly later date we reach firmer ground, for many individual bones display definitely alien characters such as cannot be explained away as being examples of extreme variation of the Egyptian people or the result of some pathological condition.

The Proto-Egyptian as a rule had a comparatively small and relatively broad nose, with a very small nasal spine. Yet it is not uncommon to find individuals with narrow, high-bridged, prominent noses and large nasal spines. The problem that arises is, are such cases really

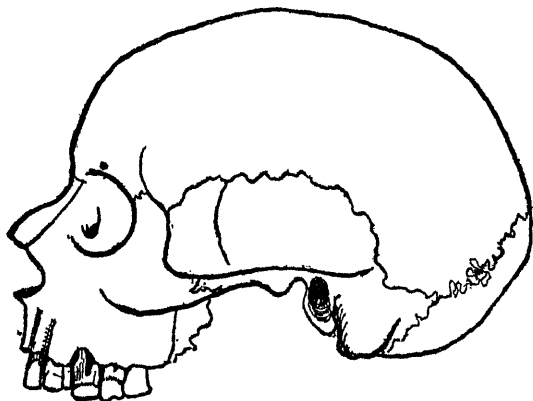


FIGURE 5.—Predynastic Egyptian skull from Naga-ed-dér (Hearst Expedition). Narrow, high-bridged prominent nose.

Proto-Egyptian, or are they, say, Arabic in origin?

The problem of the relationship of the Early Egyptians and the Arabs is one that presents singularly elusive difficulties. In the first place no bodily remains of Arabs at all comparable in age to those of the Predynastic Egyptians have yet been obtained for examination and com-

parison. Moreover, the modern political conditions in Arabia and the attitude of its people are such that practically no systematic excavation has been possible in that great peninsula ; but the investigations of a brave and intrepid band of scientific travellers have shown that Southern Arabia has enjoyed a long period of civilization ; and no doubt its soil still harbours the remains of the earliest Semites and the records of their achievements.

But the modern Arab, such as those now dwelling in the provinces of Yemen and Hejaz, and the wandering Bedawin who make their way into Egypt, present so close a likeness to the Proto-Egyptian racial type that it would be a matter of some difficulty to discriminate between their osseous remains. Certain distinctive types of face and cranium that are of common occurrence among the Arabs occur only rarely among the Egyptians ; but over and above these there is a very large section of modern Arabs who seem to conform precisely to the Proto-Egyptian type. I do not think there can be any room for doubt that the two peoples are closely related ; but this makes it all the more difficult to attempt to discriminate between them, or to pretend to estimate the extent of Arabic influence in Egypt.

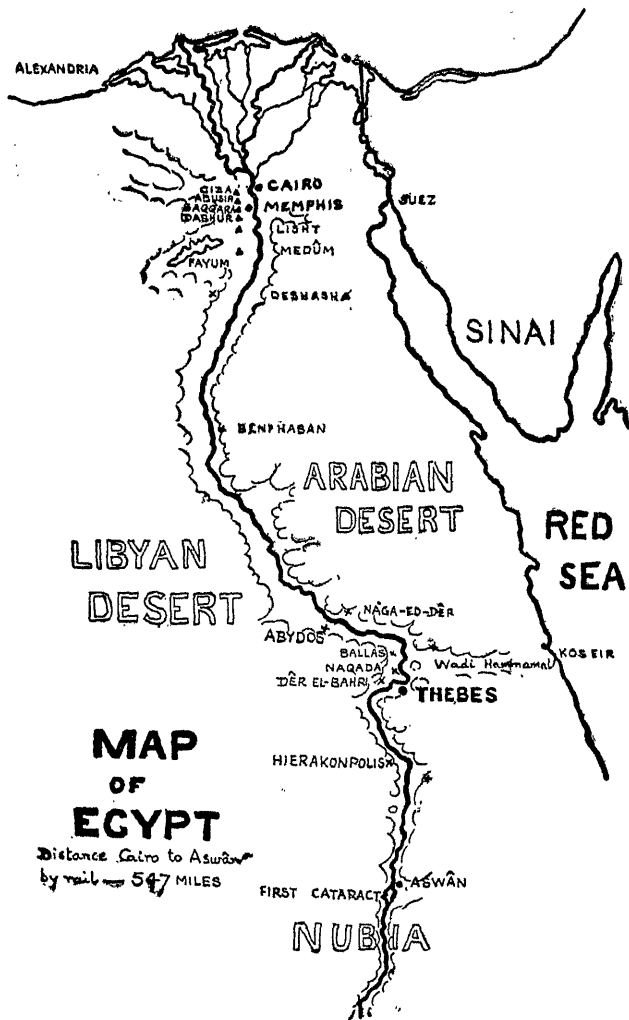
Arabia presents a relationship to Egypt which differs in many respects from that of any other country. Compared with the enormous Arabian

peninsula Egypt is an altogether insignificant territory ; but if we agree to admit that the domain of the kinsmen of the Egyptians forms an elongated thread stretching from the Mediterranean to Somaliland (see map on page 81), the two populations, Hamitic and Semitic, will be seen to occupy parallel strips of land almost 1400 miles in extent. But the Red Sea and the Eastern Desert separate them, and prevent the free intermingling of their populations. At the northern and southern extremities, however, the two territories are brought nearer together. At the northern end, where there is a land connection through Sinai, the eastern wing of the Egyptian Delta stretches out to help bridge the gap between the Nile Valley and Arabia with fertile land ; and in the south, just at the place where the domain of the Hamite impinges upon the Red Sea littoral, Arabia reaches out toward the African shore, with only the narrow straits of the Bab el-Mandeb to separate them. It is certain that there has always been a free intercourse between the two peoples in the Sinai Peninsula, and across the Bab el-Mandeb. Moreover, in the area intervening between these northern and southern links between the two domains, both the Arabic and the Beja nomads have roamed the Eastern Desert for long ages, and formed a less intimate link between the two peoples.

In its passage through Upper Egypt the Nile

takes a considerable bend towards the east at a point a short distance north of Thebes (see map on page 97), and opposite the bend a valley, the Wadi Hammamat, leads through the hills to the Red Sea coast at Koseir. From the records inscribed upon the rocks along this route we know that there was some traffic along it in the times of the Fifth Dynasty : but it is such an obvious means of access from the Nile to the sea that we can be sure it must have been traversed even in Predynastic times, or at any rate a highway where the Arab and the Proto-Egyptian met and intermingled. The widespread occurrence of marine shells, presumably from the shores of the Red Sea, in the Predynastic graves of Upper Egypt and Nubia is positive evidence of the reality of such intercourse.

Among those scholars who still cling to the idea that Egyptian culture was derived from some foreign source it has been customary to confer the special distinction upon the Wadi Hammamat of being the channel through which this ready-made civilization made its way into Egypt. But how the hypothetical carriers of this culture got to the Red Sea and where they came from have not been explained ; nor have the advocates of this theory ever attempted to explain how all traces of its foreign origin were so completely deleted from this civilization as soon as it reached the Nile, or by what means it assumed a garb so



Note that the names "Memphis," "Lisht," "Medûm," and "Deshasha," printed on the eastern side of the river, refer to the sites marked on the western side.

thoroughly Nilotic in character. Such a pretended explanation explains nothing, and only creates confusion. The Wadi Hammamat no doubt has been an important pathway of communication between Egypt and Arabia in all ages; and it probably witnessed even in Predynastic times a not inconsiderable stream of people going and coming between the two lands. But more than this we are not justified in assuming.

While it can be regarded as certain that some amount of Arabic admixture has been taking place throughout the last sixty centuries, for the reasons set forth in the preceding paragraphs there is no means of estimating its volume or determining the extent of its influence.

There is one fallacy to be carefully guarded against in attempting to interpret archaic portraiture. It is not uncommon to find writers assuming that men represented in Ancient Egyptian paintings and sculpture wearing a short pointed chin-beard together with a scanty cheek-beard, but with little or no moustache, must be Arabs. But I have already pointed out that the Proto-Egyptian was endowed by Nature with a similarly disposed facial adornment, and was accustomed to represent himself wearing the cheek-beard until Protodynastic times, when it became the fashion for Egyptian men to shave. The nomadic Arab probably did not shave at so early a period; and hence he continued to be

represented with his natural beard long after the Egyptian had been portraying himself with a smooth face or with a chin-tuft only.

It is significant that when the Arab did begin to use the razor, he shaved the lips only, or the upper lip alone. This again is true to the custom that prevails among almost all peoples of emphasizing or exaggerating the distinctive traits with which Nature had endowed them. The Arab, having little or no moustache, removed the few hairs that studded his upper lip.

Even when the Arab in Syria intermingled with the Armenoid population, which was distinguished by the luxuriance of its beard and moustache, the old Arabic convention still held sway, and the long-bearded hybrid people still shaved their moustaches, like many old-fashioned Nonconformists in England and Scotland to-day. It is an interesting illustration of the extreme conservatism of the Syrian population in respect of this custom, that in the early Christian cemetery of Armenoid immigrants into Nubia, which was discovered on the island of Hesa, the men were wearing long beards but had shaved their upper lips.

In his excavation of the "Royal Tombs of the First Dynasty" at Abydos, in 1900, Professor Flinders Petrie found in the tomb of King Qa a piece of ivory upon which was engraved an excellent portrait of a typical Armenoid Semite

with long beard and shaven lip. The finding of such an object in Upper Egypt at this early period is a fact of very great interest and importance as evidence of contact with foreigners ; not merely with mere Arabs, who may prove to have been kinsmen, but with the big-nosed, full-bearded



FIGURE 6.—An Armenoid captive.—First Dynasty.
After Flinders Petrie.

Semites who exhibit unmistakably Armenoid traits (see Figure 6).

Thus we have positive evidence that Egypt and Arabia had come into contact by the time of the First Dynasty, not only from the accounts of conflicts between the people of Lower Egypt and the "sand-dwellers" of Sinai, but also in this bas-relief of a typical Semite found in the Thebaid.

And from this time onward there are records, both literary and pictorial, which go to prove the

perpetual feuds between Arabs and Egyptians. In the wall-pictures found by Flinders Petrie in a Fifth Dynasty tomb at Deshasha there is a scene representing the Egyptians smiting the Arabs; and similar encounters were described and depicted times without number in subsequent ages.

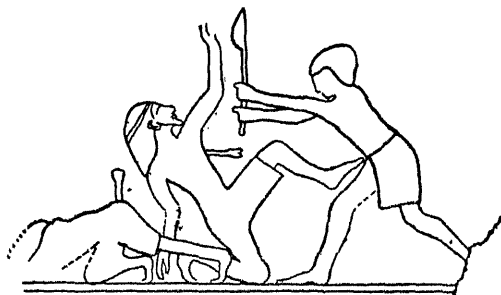


FIGURE 7.—A Fifth Dynasty picture of an Egyptian smiting an Arab.
After Flinders Petrie.

It is inconceivable that this intercourse, which began long before the historic period and has continued without intermission ever since, could have failed to lead to considerable racial admixture, even though we are not able to pick out individual bones from those found in Egyptian tombs and proclaim them as the remains of Arabs.

The balance of probability is strongly in favour of the view that the Arabs and the Proto-Egyptians were sprung from one and the same

stock, the two divisions of which, living in the territories separated by the Red Sea, had become definitely specialized in structure, in customs and beliefs, long before the dawn of the period known as Predynastic in Egypt. Moreover, it can be asserted with confidence, that even as recently as the Early Dynastic period, the Hamitic population of East Africa, many of whose elements filtered down the Nile into Egypt during the following two millennia, was in intimate contact with the Semitic population on the other side of the Straits of Bab el-Mandeb.

In this discussion I have not mentioned the linguistic evidence, which, according to many scholars, points to a similar conclusion. This, however, is a matter for philologists to decide. I have attempted to indicate the extreme difficulty of the anthropological question, and have referred to certain scraps of evidence to suggest that the chief reason for the cryptic nature of the problem is the fact that the Arabs and the Egyptians are kindred peoples, sprung from the same parents, which would explain the impossibility of distinguishing the remains of one from those of the other.

But if there is this element of uncertainty in the attempted demonstration of the intermingling of Egyptians and Arabs, we cannot entertain any doubts in reference to a definitely alien strain

that made its appearance in the people of Egypt during the Early Dynastic period, and left its indelible impress in their physical traits for all time. The heterogeneous features appear in a form so pronounced as to justify the positive assertion that the alien element in the mixture was neither Egyptian nor did it belong to any of the kindred peoples. It was something quite foreign and certainly Asiatic in origin—that variety of Asiatic which von Luschan has called Armenoid.

There are reasons for believing that this sudden appearance of a large infusion of alien traits in the population of Egypt before the beginning of the third millennium was only one of many manifestations—or, as I hope to be able to prove in the course of the next chapter, one of the by-products of the great fundamental cause—of a widespread ferment among the peoples of Asia and Eastern Europe at this time, which was destined to play a large part in shaping the distinctive civilization of Europe and directing the course that the history of the world has taken.

In his work on the staff of the Pumpelly Expedition in Turkestan, as well as in a series of memoirs which he has published since then, Professor Ellsworth Huntington has attempted to explain this great revolution in the world's history, as well as many other events in more

recent times, as being the result chiefly of climatic changes in the heart of the Asiatic continent (see *The Pulse of Asia* and the work by the same author dealing with Palestine).

No doubt geographical environment plays an important part in determining the customs of different peoples, even if its influence in shaping their bodies is open to question. Moreover, it may have happened that a change of climate led to the desiccation of large tracts of Turkestan, and drove its people in great measure to seek new pastures for their flocks and new homes for themselves. It may be that for some such reason large numbers of people whose original home lay east of the Caspian Sea may have moved west along the mountain ranges as far as the Caucasus and Asia Minor. But even if we are willing to go thus far with Huntington—and it is very much farther than either the facts or the probabilities warrant—we are still a long way from a true appreciation of the real meaning of the greatest revolution in the affairs of mankind.

The real leaven that brought about this widespread ferment was the discovery of copper and the invention of metal implements. The presence of the sturdy, long-bearded Armenoid population in Asia Minor may have been due originally to some climatic change in Central Asia ; but it was of a nature altogether different from that postulated in Huntington's speculations. It was not

the desiccation of Turkestan that drove the brachycephalic aborigines of that area to migrate into other regions, such as Anatolia, but rather the opening of the doors to these new and attractive domains that allowed them to wander there when the great wall of ice that hemmed them in during the Glacial Epoch melted and so made these southern and western wanderings possible. This occupation of the Armenian highlands occurred long before the great events we are about to study. So that even if Huntington's conclusions are granted in this modified form, they afford only the predisposing and not the real and exciting cause of the world's emergence from the Age of Stone into that of Metal, and the spread of the influence of this discovery into Europe and Asia.

The introduction of metal weapons into the conflicts of nations had a profound effect upon the course of history. It has been pointed out earlier in this book that an equipment of metal spears and swords not only gave their possessors an immense and decisive advantage in battle, but the knowledge of the efficiency of their weapons must have given the courage to undertake great enterprises and the incentive of a consciousness of the success that was sure to attend the efforts of those supplied with the new arms.

Its immediate effect in Egypt seems to have been to weld the petty kingdoms under one

sovereignty, and the extension of the United Kingdom's influence into foreign parts.

But the search for the ore to make metal weapons exerted a still more profound influence.

Soon after the amalgamation of the Egyptian kingdoms expeditions were sent beyond the frontiers to obtain copper ore, wood, and other objects for which the newly developed technical skill in the various crafts had created a demand. Even in the times of the First Dynasty the Egyptians began the exploitation of the mines in the Sinai Peninsula for copper ore, and early in the third millennium fleets of Egyptian ships were trading in foreign parts, getting timber from the Lebanons, and far south on the Red Sea coast obtaining resins, myrrh, wood, and electrum from the Land of Punt. Meyer goes so far as to say that there can no longer be any doubt that in the times of the Ancient Empire Palestine and the Phœnician coast were already Egyptian dependencies. Whether this be so or not, there is evidence to show that an intimate intercourse had sprung up between Egypt and Palestine, as far north as the Lebanons, before the end of the Third Dynasty.

The widespread distribution of dolmens in Palestine, as far south as Petra and north as far as the waters of Merom affords corroborative evidence of Egyptian occupation of Palestine in the Pyramid Age, for there can be no doubt that

the dolmens found there were crude and early attempts to imitate the mastabas of Egypt. The greater concentration of these monuments in the region of the northern end of the Dead Sea and east of Jordan (H. Vincent, *Canaan*, 1907) suggests that mining for copper ore may be the explanation of the presence of the early Egyptians in this region.

This association with foreigners beyond the borders of Egypt proper led to far-reaching consequences, not only to the Egyptians themselves, but also to the peoples with whom they came into contact, and indirectly of the whole ancient world. The people of Northern Syria no doubt learned the use of copper as the result of this intercourse, and this knowledge must have spread rapidly, especially into Asia Minor, which is so rich in the ore.

The Egyptians themselves from this time onward bear ample witness in their own persons to the reality of this foreign intercourse ; for, by the time of the Pyramid-builders, the physical characters of the people of Lower Egypt had become modified to a marked degree by an infusion of alien blood. The remains of the people of Lower Egypt obtained from cemeteries of the Ancient Empire present marked features of contrast to those of the Proto-Egyptians of Upper Egypt, which we have studied in previous chapters. Although they exhibit a sufficiently large

number of points of similarity to make it certain that the substratum of the population is still Proto-Egyptian, there are many traits so utterly alien to the latter as to leave no doubt that foreign admixture has taken place. No competent observer who has examined material from Lower Egypt and compared it with Predynastic remains from Upper Egypt has failed to detect this obvious and unquestionable fact, which explains much of the discrepancy between the opinions of different writers upon the physical characteristics of the people of Egypt.

When Professor Flinders Petrie discovered the first archaic cemetery in Upper Egypt (1894), he recognized that the human remains found in this early graveyard presented racial characters clearly distinguishing them from those which he had found two years before (1892) in the earliest Egyptian cemetery (Medûm) examined up till then. He was thus faced with a problem the paradoxical nature of which can be appreciated only now that light has been thrown upon all the elements of his awkward dilemma. For the people whose remains were associated with the characteristically Egyptian objects in the graves of known and well-recognized types of Medûm were less deserving of the title Egyptian (because of large alien admixture) than those Proto-Egyptians whose remains were found (1894) in graves of then unknown types and associated

with objects not found in Egypt before that time. It is easy to understand that this racial paradox must have had some weight in forcing the conclusion upon him that these people whom we now know to be Proto-Egyptians were not Egyptians.

Before passing on to consider the distinctive features of the alien people and their influence in Egypt, to the discussion of which the next chapter will be devoted, it may be stated that there is no reason for supposing that these people of Lower Egypt were merely the autochthonous population of the Delta, diversely specialized from the Upper Egyptians by the force of a different environment.

It is highly probable that if we ever obtain the remains of the Early Predynastic population of Lower Egypt, it may present some points of contrast to those of the Thebaid: but many of the people who lived in the neighbourhood of Memphis during the Ancient Empire exhibit quite definite alien traits, which we can recognize as being distinctive characteristics of a known race of foreigners, who, moreover, were inhabiting a territory adjoining Egypt, and intermingling with the Egyptians, at the time these peculiarities of cranial and facial form began to manifest themselves in the inhabitants of Egypt.

Two important problems have emerged from the discussions in this chapter, for which no adequate solution was found in the first edition. It is clear that while there is a Semitic speech or

group of languages there is no true race that can be called Semitic. The Arabs are a small section of the Brown Race whereas the Jews and the other so-called Semites of Palestine, Syria, and Mesopotamia belong to the Armenoid Race and, apart from language, customs, and beliefs, are quite distinct from the Arabs.

The other problem that had merely been mentioned in this chapter was solved by Mr. W. J. Perry in 1915. While I correlated the sudden extension of civilization as the result of the discovery of the use of copper and referred to the search for copper ore as one of the reasons that impelled the Egyptians to exploit countries beyond the borders of Egypt, Perry has shown that the mining camps for working copper, gold, et cetera, became foci of cultural influence in foreign lands, places where people of a higher civilization introduced their own crafts and agriculture, their own customs and beliefs, and impressed them upon the local population.

For a discussion of the affinities of the Arabs see Professor C. G. Seligman, "The Physical Characters of the Arabs," *Journal of the Royal Anthropological Institute*, Vol. XLVII, 1917, p. 214; and for the Jews see Dr. R. N. Salaman, "Racial Origins of Jewish Types," *Transactions of the Jewish Historical Society of England*, Vol. IX, 1922, p. 163. For an account of the literature relating to the possibility of an early development of civilization in Syria see Professor Albert T. Clay's *The Empire of the Amorites*, 1919.

CHAPTER VII

THE POPULATION OF LOWER EGYPT UNDER THE ANCIENT EMPIRE

MOST archæologists who have discussed the civilization of Ancient Egypt have harboured the idea that a great part, if not the whole, of Egypt's culture was borrowed from some foreign source. Thus it has happened that many of the anthropologists who have investigated the bodily remains of the Ancient Egyptians have begun their examination handicapped by this bias, and have made it their specific object in many cases to find, if possible, some physical evidence in the relics of the people themselves of this "foreign invasion" which the archæologists postulated.

The whole of this fiction of the alien derivation of Egyptian culture has now been swept away by the investigations carried on by Prof. G. A. Reisner and his collaborators. Reisner has given a complete and convincing demonstration that Egyptian civilization took root in the Nile Valley itself and attained its full maturity there, without borrowing its most distinctive elements from other peoples (*The Early Dynastic Cemeteries of*

Naga-ed-dêr). This does not exclude the possibility that intercourse with other peoples may have had some effect in quickening its development or in modifying its details.

Thus the anthropologist is now able to turn his undivided attention to the study of the human remains, without the disturbing consciousness that at a particular period he will be expected to bring in some foreign population to satisfy the archaeologists, who supplied him with the material for his investigations.

When, in the year 1901, I began the study of the remains of the Early Egyptian people, it was my singular good fortune to be permitted to commence my investigation on the material then being brought to light in the Thebaid (at Naga-ed-dêr, about 100 miles north of Thebes) by the Hearst Expedition of the University of California, which was under Dr. Reisner's direction. Circumstances were no less propitious in decreeing that I should make my first real acquaintance with Ancient Egyptian remains by studying the well-preserved bodies and skeletons of a humble Proto-Egyptian population of the earliest known Predynastic period, whose graves were then being opened by Mr. A. M. Lythgoe. Nor did this exhaust the singularly favourable circumstances which the Hearst Expedition's labours created : for alongside this Early Predynastic cemetery Dr. Reisner was excavating a series of graves dug

during the times of the First and Second Dynasties ; a few hundred yards away Mr. A. C. Mace was opening the tombs of persons buried in the various periods from the Second to the Fifth Dynasties ; and on the same site the members of this expedition also brought to light a very large series of tombs ranging from the time of the Sixth Dynasty through all the intervening periods to that of the Twelfth Dynasty, some in rock-cut tombs, others dug in the sandy plateaux below the cliffs. Thus there was provided a chronologically unbroken series of human remains representing every epoch in the history of Upper Egypt from prehistoric times, roughly estimated at 4000 B.C., up till the close of the Middle Empire, more than two thousand years later. To complete this unique opportunity, the archæologists brought to light upon the same site, in graves cut into the cemeteries of the then forgotten and remote past, a large series of Coptic (Christian Egyptian) graves dated at the fifth and sixth centuries of our era, i.e. immediately before Egypt became " Arabized " in religion, language, and customs.

The study of this extraordinarily complete series of human remains, providing in a manner such as no other site has ever done the materials for the reconstruction of the racial history of one spot during more than forty-five centuries, made it abundantly clear that the people whose remains

were buried just before the introduction of Islâm into Egypt were of the same flesh and blood as their forerunners in the same locality before the dawn of history. And nine years' experience in the Anatomical Department of the School of Medicine in Cairo has left me in no doubt that the bulk of the present population in Egypt conforms to precisely the same racial type, which has thus been dominant in the northern portion of the Valley of the Nile for sixty centuries.

In looking through the notes that I began compiling at Naga-ed-dêr in 1901, I find comments relating to occasional specimens, even some from graves as remote as the time of the Second Dynasty (Mace's excavations), in which the exact conformity of certain skeletons to the Proto-Egyptian type is questioned: such doubts, however, are very rare until the Sixth to Twelfth Series is reached, when they become comparatively common.

At the time these notes were made I paid little attention to these suggestions of heterogeneity—in fact, it came as a surprise to me to find these comments, when recently looking through my old note-books with the specific object of searching for such questionings; for I had quite forgotten these isolated cases—because so large a proportion of the population at the time of the fifth century A.D. still conformed to the racial standards that I had come to regard as distinctive of the Proto-

Egyptians. Moreover, the only group of remains from Naga-ed-dêr that included any considerable number of these doubtful individuals consisted of the wealthier, aristocratic people, who were able to afford rock-cut tombs; and no doubt it was the possibility that the broader heads, finer features, and more robust skeletons may be merely evidences of an aristocratic caste which led me to attach so little importance to them in the years from 1901-1904. For it is a well-known fact that the aristocracy in any civilized state tends to acquire a better and more refined physique, not only as the result of their easier circumstances and better food, but by reason of their wider range of choice in marriage.

But in 1904 the problem presented itself to me in a much more pronounced form. In the previous year the Hearst Expedition had begun excavating the Ancient Empire cemetery around the Giza Pyramids, and I was thus afforded the opportunity of examining the remains of more than five hundred individuals, who had lived at the time of the Pyramid-builders, and had taken some part in planning and building these marvellous monuments, or in guarding them during the succeeding two centuries. For reasons which will appear in the course of this discussion, it would be difficult to exaggerate the importance of this material and the evidence it has afforded.

Here again I found a condition of affairs pre-

cisely analogous to that seen in the case of the remains from the rock-tombs at Naga-ed-dêr. A large proportion of the remains, and especially those of women, showed a close resemblance to the majority of the Egyptian remains examined in Upper Egypt (Naga-ed-dêr) ; but there were a few that I definitely labelled " alien " in my note-books, and a considerable number in which the head was bigger and especially broader, the features finer, and the skeleton generally more robust. At that time I refused to call this more numerous group foreign, because it seemed doubtful whether they may be merely better developed specimens of the Egyptian race, seeing that we were dealing with the remains of the highest aristocracy among the Pyramid-builders. It was not until the year 1908, when the remains of definitely alien populations, found near the First Cataract, were being submitted to critical examination, and comparison with anthropological material from Egypt and elsewhere, that the criteria were found for establishing in the remains of Ancient Egyptians the reality of certain physical traits distinctly foreign to Egypt. The nature of these alien features has been described in some detail in the Reports and Bulletins of the Archæological Survey of Nubia, and need not be set forth in detail here ; but the results of the minute examination of all the available Egyptian material studied in the light of this new knowledge,

and compared with early human remains from other countries, must be considered more fully. The information thus obtained supplies the clue for the interpretation of a vast number of apparently paradoxical statements concerning the history of mankind in Africa, Asia, and Europe, which for many years have been a stumbling-block in the way of the progress of Anthropology.

Unless the historical circumstances, briefly sketched in the last chapter, be borne in mind—the probability that the process of racial admixture during the Early Dynastic period occurred in foreign lands, i.e. in Syria—the physical characteristics of the people whose remains were buried in the Giza necropolis, as well as elsewhere in the other cemeteries of Memphis, will seem very puzzling, if not wholly paradoxical. For the bones present a curious blending of features, such as we have grown accustomed to regard as distinctively Egyptian, and others equally certainly alien, perhaps even representative of two fairly well-defined foreign populations.

In stature there is no significant difference between the Proto-Egyptians and the Giza people; in fact, these Lower Egyptians were even slightly shorter than the people of Upper Egypt. Their statuary and wall-pictures make it abundantly clear that the people of Lower Egypt had black hair and eyes, like the earlier population of Upper Egypt. But the former, if no taller, were built on

sturdier lines, their bones being distinctly more massive, with well-developed muscular ridges and impressions, and none of the effeminacy or infantilism of the prehistoric Egyptian's skeleton.

The brain-case often impresses one at a glance, not only by its greater capacity and lack of that meagre, ill-filled character usually presented by the Proto-Egyptian's skull ; but even more so by the difference in its shape. The forehead is broader than it is in the Proto-Egyptian, and it is not uncommon to find salient overhanging eye-brow ridges. Although the cranium is on the average loftier than it is in the aboriginal population at first sight, it often looks flat and in many cases there is a distinct slope in the forehead. It becomes rare to find the bulged-out occiput, which is such a peculiarly distinctive feature of the Proto-Egyptians and their kinsmen of the Brown Race, living both on the west and east of Egypt ; and with this flattening of the top and back of the head the angularity of the prehistoric skull becomes lost, and its shape becomes a broad ovoid, or the more exaggerated development of this form, which Sergi calls " sphenoid."

Although these aliens who began to make their way into the Delta from Palestine and Syria about fifty centuries ago all conform to the same racial type, known as Alpine or Armenoid, they lack the uniformity of the Proto-Egyptian people. In fact there is a very wide range of variation

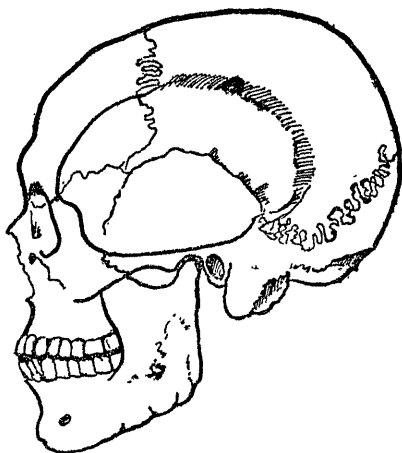


FIGURE 8.—Profile of the skull from the Giza necropolis (*circa* 2600 B.C.), showing alien (Armenoid) traits.—Harvard and Boston Expedition's Excavations.

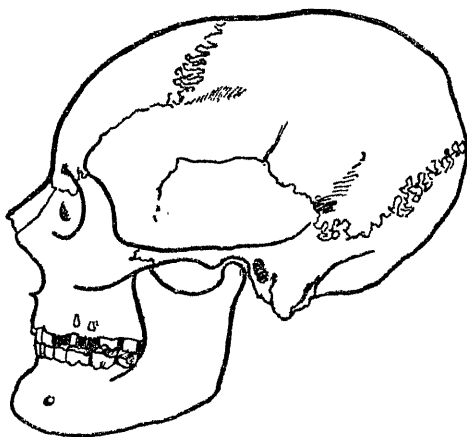


FIGURE 9.—Profile of a skull exhibiting other alien traits, obtained by Flinders Petrie at Medūm (Fourth Dynasty): now in the Museum of the Royal College of Surgeons in London.

amongst them as regards the form of the skull and face (compare Figures 8 and 9). In some the cranium is high-domed and has a vertical forehead, in others it is flat and has a sloping forehead. In some the occiput is flattened and vertical: in others it is fuller and rounder. In fact in every feature of the skull, nose, orbits, cheek-arches, and jaws great variability is displayed. Yet they all display the peculiarities of forehead, occiput, orbits, nose, and mandible which are distinctive of the Armenoid race. The recognition of this fact is of such fundamental importance that I shall devote the greater part of this chapter to the definition of these distinctive features.

The issue involved in the certain identification of these alien traits of jaw, orbit, and cranial form is one of far-reaching importance. For the most numerous group of these immigrants into Egypt had skulls (Figure 10) which differ relatively slightly in length and breadth from those of the Proto-Egyptians, so that if the definitely alien traits, to which I have just referred, are overlooked these foreigners with mesaticephalic (or even dolichocephalic) crania might easily be put into the Mediterranean group (Brown Race), as in fact is repeatedly done even at the present time. Some years ago I was permitted to see a series of crania from the Lake Dwellings of Glastonbury, which were being studied by Sir William Boyd Dawkins: without hesitation he

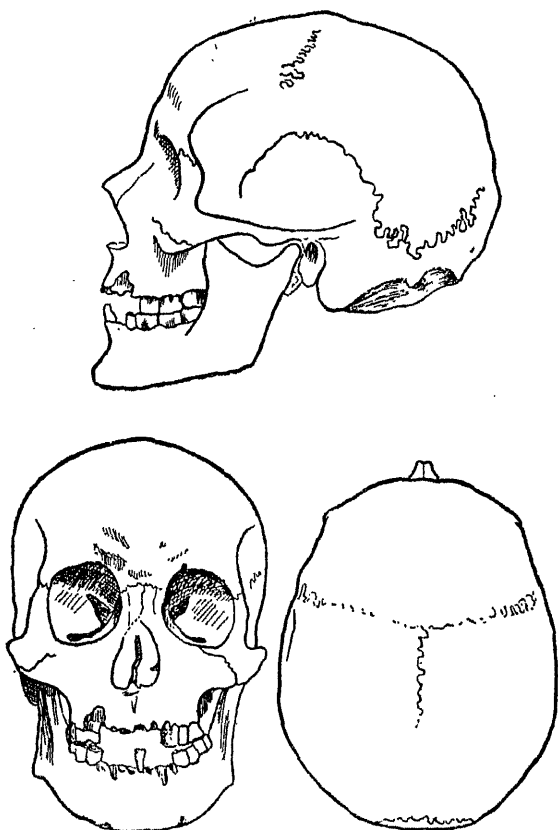


FIGURE 10.—Views of the left side face and vertex of an alien from a cemetery of Dynasty II, excavated by Mr. J. E. Quibell at Saqqara.

assigned them to the Iberic (i.e. Mediterranean) Race. But the majority of them clearly belonged to the relatively narrow-headed group of the Armenoid Race.

When the significance of these facts is fully recognized it will be necessary to make a revision of the interpretation of the racial history of Europe, because, in the latter part of the Neolithic and all the later phases in Western Europe, an appreciable portion of the so-called Mediterranean element of the population is not Mediterranean but Armenoid, or Alpine, if that term is preferred.

At the end of this chapter I shall return to the consideration of this important matter.

That these contrasts between the crania from Upper and Lower Egypt respectively, at the commencement of the Pyramid epoch, are not confined to a few selected individuals is shown by the means of the measurements of large series of skulls from the two territories. It will be found by examining these figures that in both sexes the Lower Egyptians have slightly shorter and loftier, and considerably broader skulls than the people of the Thebaid.

The averages of the percentage relations (cephalic indices) of the cranial breadths and lengths in the Memphite series (Giza) of male crania is 75.6, and in the Thebaid series 73.0; whereas the corresponding figures for the females

of the two series are 77·3 and 74·2 respectively. Expressed in the current terminology of the craniologists, the people of Upper Egypt were still dolichocephalic at the time of the earliest Pyramid-builders ; but the inhabitants of Lower Egypt had become mesaticephalic.

The average of the cubical contents of the crania in the Giza men had risen well above 1500 cubic centimetres (*circa* 1530) ; and their contemporaries at Medûm and Deshasha had a mean cranial capacity of 1496 and those at Regagna of 1508 : so that we may consider 1500 c.c. as a near approximation to the average dimensions of the brain (and its membranes) in the mesaticephalic group. The average capacity of the Proto-Egyptian male crania is less than 1400 c.c. ; so that there was more than 100 c.c. difference in the average dimensions of the brain in the autochthonous population of Egypt before and after the alien strain was infused into it.

To give a more concrete idea of the significance of these figures I have drawn to scale (Figure 11) the outlines of the upper aspect of moulds obtained from the brain-cases of two adults from neighbouring (and contemporaneous) graves in the Giza necropolis—both of the Fifth Dynasty. The contrast between the large Armenoid brain on the left and the small Mediterranean type is of interest because the former presents a remarkable likeness to the brain-form of the highest

type of intellectual European, the famous Irish writer, Dean Swift, the outline of whose endocranial cast is shown on the right.

How much this increase in the mere bulk of the brain had to do with the precocious ripening of Egyptian civilization in Lower Egypt it is im-

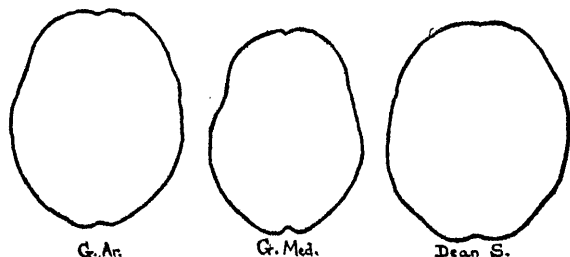


FIGURE 11.—The outlines of three casts of brain cases viewed from above to reveal the form and proportions of the respective brains. On the left the exceptionally highly developed brain of an Armenoid (Vth Dynasty-Giza). In the centre the meagre brain from a neighbouring tomb in the same necropolis. On the right the highest type of modern European brain, that of Dean Swift.

possible to say. There is nothing to prove that any new elements of culture were introduced into Egypt by the accession of this highly-endowed contribution to her population ; but it cannot be denied that the deepening and broadening of the Egyptian's conceptions and the marked aggrandizement of his achievements at this time must have been due in some measure to the stimulation of this big-brained foreign element which had been added to his constitution.

The statuary which the tombs of the Ancient Empire have yielded in such abundance (see Frontispiece) is especially instructive as a demonstration of the heterogeneity that had been introduced into the facial traits. The religious conceptions of these early Egyptians demanded the perpetuation of the body as a condition essential to the attainment of immortality: but it was realized that no artificial means had yet been discovered of so preserving the mortal remains as to retain their life-like lineaments. Hence it became necessary to make some representation of the deceased which would enable his earthly soul or *Ka* to identify its proper dwelling-place. At times they plastered over the actual mummified body with linen and a resinous paste; and then moulded this into the semblance of the man or woman. The only example of this practice that I have seen is the mummy supposed to be that of Ranefer, now in the Museum of the Royal College of Surgeons in London; but a series of variants of this practice has been recorded. But more commonly they carved in wood or stone a statue of the deceased; and it is obvious that as these statues were intended as a means of identifying the man or woman, they were life-like portraits, in which special care was given to depicting the lineaments of the face, because it was then, as it is now, the chief index of each person's individuality. The rest of the

body received more casual treatment, and was usually represented in a stiff and formal manner that presents a marked contrast to the life-like realism of the face in many of the famous statues of this period. In my book, *The Evolution of the Dragon* (1919), I have given an account (pages 16-18) of the evolution of these practices.

Many of the contrasts in the form of the face, as depicted in these statues, are due no doubt to the incompetence of the sculptor, for inferior craftsmen often made gross caricatures of their sitters. Leaving these out of account, and considering only the work of the masters, there is a much greater variety of facial types than we find in the work of the archaic period. This difference might have been explained away by the supposition that the earlier efforts were so crude and childlike, that the sculptors considered themselves fortunate if they could represent a recognizable human form, and did not strive after the unattainable possibility of reproducing individual traits, if it were not for the fact that the skulls reveal to the anatomist just such differences as the portrait-statues make evident to the layman.

The Memphite sculptors depicted many individuals with broad faces of a form quite different from the long narrow ellipse or oval of the Proto-Egyptian. The skulls found in the Giza tombs also have broader faces than are found in the

Proto-Egyptians, the average width of the face (bizygomatic diameter) being 6 millimetres greater in the former : but as the face is also longer (the upper facial height being more than 2 millimetres greater in the Giza skulls) the shape of the bony skeleton of the face is not markedly altered, although its size is greater. But the powerful development of muscles in the Lower Egyptians (indicated by the strongly marked muscular impressions on their bones) must have added considerably to the width in the living face and given the square shape so familiar in Ancient Egyptian statues. Moreover, the particular alien strain which makes its appearance in Egypt at the time of the Pyramid-builders is always associated in other lands with a tendency to the development of fat, which is markedly contrasted with the lean and sinewy appearance of most representatives of the Brown Race. The sleek, well-fed man of aldermanic proportions was well known in Lower Egypt during the Ancient Empire ; and it is reasonable to suppose that the increased breadth of face represented in the statues was due only in small measure to the actual widening of the facial skeleton, but mainly to the more liberal covering of muscular and adipose tissues with which the bones were clothed.

The nose was longer and relatively much narrower on the average in the Giza people ; but here again both the statuary and the actual skulls

reveal much greater variations of form than we find in the Proto-Egyptians. In the discussion of the variability of the nose in the latter we have seen that it may be prominent and high-bridged in the early Egyptians without departing from the racial type to a sufficient degree to permit us to call it alien. In the Giza people the nasal skeleton was often very much longer and relatively narrower than it ever was in the antiochthonous people ; and the *form* of the bones was in many instances distinctively specialized. A very characteristic peculiarity, which for convenience of reference I may call the " Grecian profile," crops up fairly often in the Giza series, but never in the native Egyptians (compare Figure 4). It consists of a straight line of nose and brow, such as the Ancient Greek sculptors loved to portray. The profile of the nasal bone runs into that of the frontal without any depression at the point of junction ; and this peculiarity, slight as it is, gives a characteristic cast to the whole face. Referring to this feature Dr. John Munro states that " it is uncommon in Greece or elsewhere, but it does exist, and is probably of mixed origin, partly Teutonic or Iberian ; partly Arabic or Phœnician, in a word Semitic, for the nearly straight line of brow and nose is a trait of the Arabs, and sculptures from Cyprus in the British Museum (650-150 B.C.) show it in the early Phœnician as in the later Hellenic statues of that

island " (*The Story of the British Race*, page 38). I do not think this statement, as it stands, conveys a true idea of the facts. The straight profile was as alien to the original populations of Greece, Arabia, and of the domains called " Teutonic " and " Iberian," as it was to the Proto-Egyptians : there are reasons for supposing that all of these peoples acquired it from the descendants of those who were dwelling in Asia Minor or Syria at the beginning of the third millennium.

The orbits of a considerable proportion of the Giza people also reveal features quite foreign to those of the autochthonous people.

In the Proto-Egyptians the orbits were usually elliptical or ovoid, but invariably had their major axes approximately horizontal and their upper margins also were horizontal in more than half of their extent (see Figure Predynastic A and B). Occasionally the form may approximate to a circular outline (Figure B) ; but the upper margin still conforms to the rule.

Amongst the Giza skulls we find a considerable proportion with orbits that do not conform to these canons. Orbits of irregularly ovoid or lozenge shapes with very oblique axes (Figure Alien A and B), and upper margins which depart more or less widely from the horizontal plane (H.P.). In addition the orbits are often much larger, of more varied form, and have thicker margins. A rarer but peculiarly distinctive alien

type consists of an originally square orbit, the infero-lateral corner of which has been dragged downward and outward.

Such forms of eye-sockets were no doubt associated in many cases with large eyes, such as the sculptors of the Ancient Empire were fond of portraying.

It would be possible, if space permitted and we were free to plunge into technical discussions, to take up every part of the skeleton in turn and demonstrate the acquisition of alien features by the Lower Egyptians. But I must content myself with one other example—one, moreover, which lends itself most admirably to the display of those racial contrasts, such as are associated with other differences of skull and skeleton that call for more exact technical knowledge for their appreciation. I refer to the lower jaw.

Being a part of the skeleton that has extensive surfaces and processes adapted for the attachment of muscles, it might be imagined—in fact, some competent anatomists still harbour this delusion—that the lower jaw becomes so modified in form by the muscular development of the individual as to afford an unreliable, if not actually deceptive, index of the race of its possessor. I need not enter into a refutation of such views, for the late Professor Rolleston showed that these objections are utterly groundless (see Greenwell and Rolleston, *British Barrows*, 1877, pages 652 *et seq.*).

and insisted upon the exceptional importance of the mandible as a racial document.

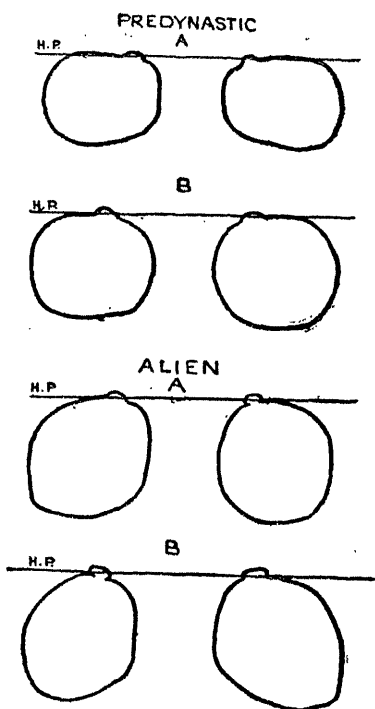


FIGURE 12.—Types of orbital outlines in two Predynastic Egyptians and two aliens from the Giza necropolis.

Great muscular development will alter the size and the ruggedness of the bone, but cannot affect those essential features in its form which

reveal racial traits. Nor, again, is the shape of the bone determined wholly by the form of the cranium, as some anatomists maintain.

The most powerfully built man of Armenoid race may have a jaw precisely similar in form to that of the frailest woman of similar ancestry : but the most extreme development of the muscles of mastication in a Proto-Egyptian cannot give the jaw an Armenoid form. Amongst Armenoids we find individuals with crania quite as narrow as many Egyptians, yet the jaw still retains the form which is distinctive of the Armenoid people.

In the accompanying diagram I have drawn to scale (by means of a camera lucida) sixteen jaws, seen in profile from the left side. (Four others are shown in situ in Figures 1, 8, and 9.) It will be seen that though the five examples of Predynastic mandibles (i to v) present certain minor variations in form, such as the angle (A) at which the body (B) joins the ramus (R), the shape and depth of the sigmoid notch (S), and the inclination and size of the coronoid process (C), they all agree in being small, and in having a very short and relatively (and often absolutely) broad ramus (R), and a shallow sigmoid notch (S). In addition there are distinctive features that cannot be displayed in the diagrams—the pointed form of the chin and the absence of any eversion of the angle (A).

These five examples illustrate the range of the

PROTO-EGYPTIAN VARIETIES

EXAMPLES OF

ALIEN FORMS

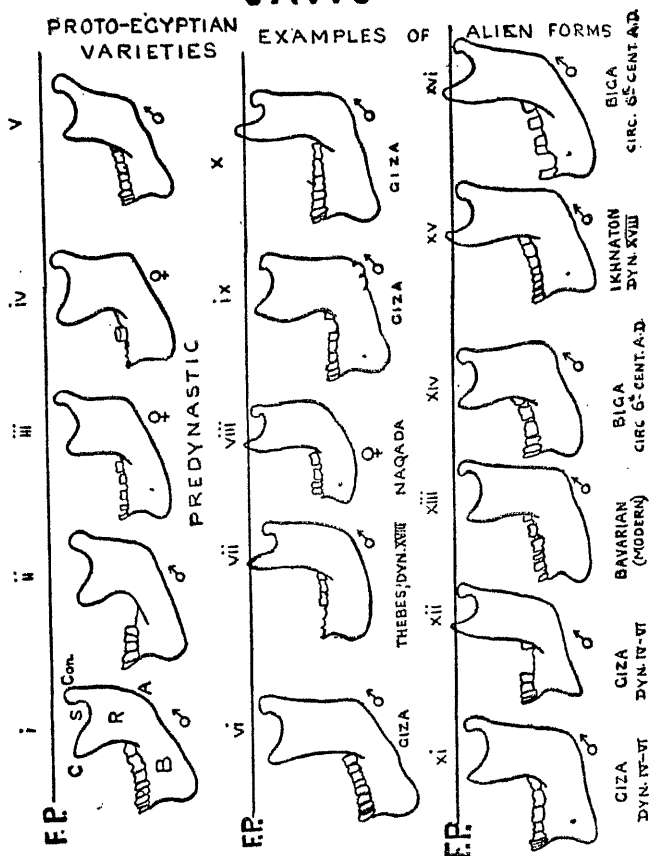


FIGURE 13.—Jaws.

common variations of the Proto-Egyptian mandible. I have omitted certain still more primitive shapes, in which the ramus approximates nearer to a square form and the sigmoid notch becomes shallower, because they are not pertinent to the comparisons I propose to institute.

These Proto-Egyptian forms of jaw always occur frequently in all collections of skulls from Egypt of any date or provenance, and are also the prevailing types amongst that large family of peoples which I have referred to as constituting the Brown Race.

But early in the Dynastic period, perhaps occasionally before its commencement, jaws of a very different shape begin to make their appearance in Egypt. Some of these alien forms are represented in figures vi to xvi. Numbers vi, ix, x, xi, xii, and xvi came from the Ancient Empire necropolis at the Giza Pyramids; No. viii is probably still earlier, because it came from the archaic site near Naqada excavated by Flinders Petrie in 1894-1895; Nos. vii and xv came from Royal Theban tombs of the Eighteenth Dynasty; Nos. xiv and xvi are the jaws of Syrian immigrants into Nubia, about 600 A.D.; and for comparison No. xiii is the jaw of a modern "Alpine" inhabitant of Bavaria.

It would be an easy matter to multiply such examples a thousandfold from all parts of Egypt and elsewhere: but these will suffice to illustrate

my point. In spite of great variations in size, in their relation to the Frankfort Horizontal Plane (F.P.), in the inclination of the body on the ramus, and in the form and strength of the bone as a whole, they all differ from the Predynastic examples in having a taller and often narrower ramus. They often have a deeper, narrower sigmoid notch and a prominent coronoid process : most of them have a broad, square chin, and many of them a strongly everted angle. As a whole they are also much more powerfully built. I have placed amongst them the Armenoid jaws from Biga, the "Alpine" jaw of the modern Bavarian, and those of people of the Eighteenth Dynasty in Egypt, who are known to have intermarried freely with the Mitanni of North Syria, for the purpose of suggesting that the Armenoid, "Alpine," Syrian, "Kleinasiatisch," or whatever name one likes to apply to this racial type, is identical with that found in the Giza necropolis.

Although considerable variation occurs in this alien series (vi to xvi), it will be noticed that the heterogeneity is *not* due to the placing in juxtaposition of bones representative of different countries and ages, or even sexes. The same variability is found in the people buried at Giza (ix to xii) more than forty-five centuries ago, as is exhibited in the aliens buried in Nubia (xiv and xvi) more than 3000 years later and in the modern Armenoids.

In the final chapters I shall have occasion to refer to the geographical distribution of people possessing this type of jaw : but I may remark at once that it is so widespread among people living under every possible variety of climate and circumstance, as utterly to preclude any idea that the presence of these features in Egypt is to be explained by the influence of the environment of the Delta upon the autochthonous inhabitants of the Nile Valley.

The latter claim has been made with the utmost regularity upon every occasion when I have discussed this matter with anthropologists. But the onus of proof that these peculiarly distinctive traits, occurring in a population more than 60 per cent of whom conform to a different type, are *not* valid evidence of racial heterogeneity, rests with the critics, who must explain why it is that in the flat, warm, marshy Egyptian Delta, in the hot, dry fringe of the Sahara, and in the Canary Isles these peculiarly diverse surroundings should have shaped the jaws (as well as the rest of the physical structure of these peoples) in precisely the same mould as the vastly different environments of the high peaks of the Alps, the highlands of Armenia and the Caucasus, the tableland of the Pamir, and the great plains of Russia have done.

There is one curious feature displayed in the Memphite statuary to which I must refer.

Although most of the statues and wall-paintings

represent the men either clean-shaven, with or without a ceremonial chin-beard, or wearing an actual chin-tuft beard, it is not uncommon to find them (at Giza, Saqqara, and at Medûm) shown with a moustache, which was never worn in association with any other facial hair, either real or false. (See *The Evolution of the Dragon*, Figures 2 and 5.)

What significance this fact may have is wholly unknown. Yet a suggestion may be thrown out in a tentative way, in lieu of more precise information.

When we recall the distinctive racial value attached to the mode of wearing the facial hair, which I discussed in the last chapter, and remember how constant the Egyptian remained throughout his whole history to the habit of shaving his face and wearing an artificial chin-beard, two possibilities present themselves. The habit of wearing the moustache may have been the custom in Lower Egypt before the amalgamation of the two kingdoms, and certain nobles persisted in observing the habit. We have no evidence in support of such a view. On the other hand it may be further evidence of the alien element in Egypt. But if this is so, we do not know of any people living fifty centuries ago who wore the moustache! Nor do we know of any people who would adopt this custom for reasons analogous to those which dictated the peculiar

styles of shaving affected by the Egyptians and Arabs respectively (see preceding chapter).

The fact that the habit of wearing a moustache only is the reverse, or the complement, of that affected by the Arabs and Syrian Semites reminds us of the influence of racial antagonisms in Asia Minor and Syria to-day. It is said that the antipathy of the Armenians and Kurds finds expression in an artificial exaggeration of their naturally peculiar head-forms. The natural flattening of the Armenian child's head is still further emphasized by pressure applied to the back of the head, lest he be confused with a Kurd: and the naturally long-headed Kurdish baby is said, according to Ripley (quoting Chantre), to have to submit to a lateral compression of its head to add to its narrowness and its contrast to that of the Armenian.

Perhaps an analogous feeling existed in the same locality five thousand years ago, something of the nature of a prehistoric "Anti-semitismus"; and the Armenoids of Asia Minor and Northern Syria distinguished themselves from those of their kinsmen, who had intermingled with Arabs and adopted Arabic customs, by wearing their facial hair in the way that contrasted most markedly with the latter. But we must leave such speculations and return to the consideration of facts.

It must not be imagined that the evidence obtained from our study of the human remains

buried in the Giza necropolis by the Pyramid-builders stands alone. Material of the same epoch obtained by other excavators in Lower and Middle Egypt, such as that obtained by Flinders Petrie at Medûm and Deshasha, now in the museums of the Royal College of Surgeons in London and of the Department of Anatomy in Cambridge respectively, presents the closest likeness in every respect to that obtained by the Hearst Expedition at Giza. In support of this statement there are not only the measurements supplied by Petrie, but also his photographs of some of the skulls published in the fifteenth memoir of the Egyptian Exploration Fund (1898): in addition Professors Keith and Macalister, in London and Cambridge respectively, kindly permitted me to examine the bones themselves, and I have been able to confirm the striking similarity of these skulls to those from Giza. Then, again, there is the large series of wonderfully realistic statuary of kings and nobles of the Ancient Empire, now scattered in museums throughout the world, to convince anyone who may be sceptical of the reality of this racial admixture.

The frontispiece, which represents a Fifth Dynasty statue from Saqqara, gives a good idea of the life-like realism of these statues.

Other skeletons, buried a few centuries later (Middle Empire—*circa* 2000 B.C.) at Saqqara (Quibell's excavations for the Egyptian Anti-

quities Department), at Lisht (Lythgoe and Mace, working for the Metropolitan Museum of New York), and still further south at Beni Hasan (Garstang's work for the University of Liverpool) have been examined, and have been found to yield ample evidence of the continuance and the southern diffusion of the effects of this alien admixture. (See map on page 97.)

But we have also been able to demonstrate its extension still further up the Nile Valley, for in the large series of crania from Naga-ed-dêr in Upper Egypt, to which I have referred earlier in this chapter, the collection representing the period from the Sixth to the Twelfth Dynasties bears ample witness to the reality of this infusion of foreign blood in the Thebaid. Nor in this case, again, is there lacking impartial evidence from other witnesses to support the statement: for, in discussing the material found in Upper Egypt, at Regagna, by Garstang, which was supposed by him to have come from the graves of the Third and Fourth Dynasties, but has since been shown by Reisner to be really Fifth, Thomson and Randall-MacIver refer to it as evidence of "a foreign intrusion" into the Thebaid, forming "a settlement of large-headed men who, as we have reason to suppose, were brought from Middle or Lower Egypt" (*The Ancient Races of the Thebaid*, page 112). Typical examples of aliens, perhaps of an earlier age still, occur among

Petrie's and De Morgan's archaic collections from Upper Egypt.

By the time of the Middle Empire, or at most a century or two later, people presenting these alien traits had extended so far south that occasional examples have been found in Nubia, nearly a hundred miles south of the First Cataract (8th Bulletin, Archæological Survey of Nubia).

Thus, long before the time of the New Empire, Egypt was permeated from one end to the other with this foreign element ; and as the result of the military campaigns which the Pharaohs of the Eighteenth and succeeding Dynasties undertook in Syria and the political hegemony which Egypt established over Western Asia, a very strong reinforcement of these alien traits was established, partly, perhaps, by a fresh stream of Asiatic immigrants attracted to imperial Thebes, but no doubt mainly by the intermarriages of Egyptians and Asiatics. It is instructive to find that the study of the physical traits of the Theban nobility of the New Empire, whose remains have been preserved for us in such vast numbers, reveals the fact that the alien traits so frequently found in these people, who, as we know from their historical records, freely intermarried with North Syrians and Mesopotamians, conform to those imprinted in the bones of the population of Lower Egypt more than a thousand years earlier. This

is further evidence in support of my identification of the earlier people as Asiatics.

Thus the process of racial fusion begun in the Delta at the dawn of history spread through the whole land of Egypt. Just as the original narrow-headed Neolithic population of Europe had grafted upon it, at the beginning of the Bronze Age, a broader-headed race, alien to Europe, so Egypt suffered a similar fate; and its Proto-Egyptian population was blended with the immigrants to become the Egyptians of History.

In the next chapter I shall endeavour to show that this comparison of events in Europe and Egypt is not a mere analogy, a mere similarity brought about by the operation of factors utterly different in themselves: it is rather an instance of what is known in biology as homology, the Proto-Egyptian being the representative of his kinsman, the Neolithic European; and the immigrant population into both Europe and Egypt two streams of the same Asiatic folk. Why the mixtures of homologous populations led to such vastly different results in Europe and Egypt respectively will be discussed in the next chapter.

If it be asked when this alien influence first made itself apparent in the physical characters of the people of Egypt, it can be stated with certainty that there is no definite trace of it in Upper Egypt in Predynastic times, and only rare sporadic instances before the time of the Fifth

Dynasty, when foreign traits became fairly common among the aristocracy. Lower Egypt has not yet afforded much evidence of the archaic period; but the information now in our possession seems to prove that Armenoid traits occurred in some few skeletons of Protodynastic date and became common in the times of the Third and Fourth Dynasties, i.e. long before they appeared in Upper Egypt.

Three months after the publication of this book in 1911 a unique opportunity was afforded me to testing the views set forth in the foregoing paragraphs and adding details to our scanty knowledge of the early population of Lower Egypt. Mr. J. E. Quibell was excavating a cemetery of more than four hundred tombs at Saqqara, which he referred to the Second and Third Dynasties, and I went out to Egypt to study the human remains, an account of which I wrote for the *Report of the British Association for the Advancement of Science* (1914, pages 212-28). The cemetery proved to be one of exceptional historical interest. It revealed the first attempts to make rock-cut tombs. The persistence of vestigial remains of the stairs established the fact that this type of burial chamber, which at first was a real subterranean house, was really derived from the earlier Egyptian model in which the rock was not cut into. The site afforded other kinds of archæological evidence of



great interest and value, such, for example, as the earliest unequivocal evidence of an attempt at mummification and the first examples of symmetrical thinning of the skull, such as I had previously attributed to the custom of wearing heavy wigs. But the most interesting observations I was able to make on this site were those which established the presence of a large alien element in the population of Lower Egypt as early as the time of the Second Dynasty. The reader is referred to the report (quoted above) for the details of this discovery.

I have reproduced here three views (Figure 10, p. 121) of the skull of a man from this cemetery revealing the commonest of the alien types. While the orbits and mandible, and in less degree the nose, forehead, and cranial form, reveal its foreign affinities the skull is not much wider (its cephalic index is 77) than many truly Egyptian skulls.

The great variations in the different alien skulls found on the same sites in Egypt suggest that at some early period in the history of the Armenoid Race groups of these people became segregated one from the others and in its isolation each developed its own distinctive features. At a later period, when the ferment of civilization began to work in Anatolia and the Caucasus-Caspian area, there was a mingling of these varied groups of the same race as they made their way

into Syria and thence into Egypt and elsewhere on the Mediterranean littoral. The wide diffusion (among the skeletons obtained from the four hundred tombs opened by Mr. Quibell) of the same alien traits as are found a century or two later in the mastaba tombs at the Giza Pyramids raises a difficult problem for solution. In my report to the British Association it was made clear that although the type of skull shown here in Figure 10 is definitely alien, so far as the measurements of the cranium are concerned it approaches the Proto-Egyptian type more nearly than the fully-developed Armenoid. Hence the problem arises whether people of this type are really aliens and not merely a modified group of Mediterranean people. On the technical evidence there seems to be no doubt that they represent a relatively undifferentiated and presumably primitive branch of the Armenoid Race.

CHAPTER VIII

THE MUTUAL RELATIONS OF EGYPT AND WESTERN ASIA

IN the words of Sir Gaston Maspero, "inveterate prejudice alone could prevent us from admitting that the Egyptians of the Memphite period went by sea to the ports of Asia and to the peoples beyond the sea." As the builders of the earliest sea-going ships the Egyptians were the first to embark on maritime adventures both in the Mediterranean and Erythraean Seas. Not only do the ships themselves provide evidence that the Egyptians invented them, but the later vessels of other peoples provide equally decisive tokens of the fact that the Egyptians provided the models for them to imitate and the experience of seamanship to sail them. Moreover, Egyptian literature corroborates all these inferences which are drawn from the ships and the evidence of Egyptian influence overseas. In spite of this writers still persist in denying that the early Egyptians were a sea-faring people, when we know that they taught the world seamanship. Elsewhere I have discussed the evidence in justification of this claim ("Ancient Mariners,"

Journal of the Manchester Geographical Society, 1917).

The admixture of peoples in the Mediterranean islands and coasts and their possession of Egyptian elements of culture afford further corroboration.

The attempt to answer the question of the source and affinities of the alien element in the hybrid population of the Memphite kingdom and the adjoining strip of Palestine raises for discussion one of the most difficult problems in the whole range of anthropological enquiries.

For we must enter that maelstrom of Western Asia, where for long ages the varied racial currents from Asia, Africa, and Europe have met and mingled in a bewildering confusion of tongues and people: no more forbidding problem in anthropology could be imagined than the attempt to evolve any semblance of order out of this chaos. Moreover, the views of scholars upon the interpretation of this puzzle are so manifold and so conflicting that in our extremity we cannot, even this once, indulge ourselves by falling back on authority to escape the difficulties of the situation.

Attacking the problem from the standpoint of anatomy, in other words, discovering what tale the human remains have to tell, the implements are struck from our hands at the very outset of the enquiry by the fact that the materials for the investigation of the physical characters of the

early peoples of nearer Asia are almost wholly lacking ; and we are driven to rely upon pictures and statuary and the study of the living population.

The great oblong strip of land, bounded on the west by the Mediterranean and on the east by India, on the south by Arabia and the Arabian Sea, and on the north by the highlands of Asia Minor, the Caspian Sea, and the mountain ridge, the eastern fragment of which forms the Hindu-kush, has been the crucible in which the human ingredients of the early civilizations have been mixed for fifty centuries or more.

Geographically a part of Asia, it is more probable than not that ethnically this territory was originally an appendage of the African home of the so-called Mediterranean peoples, before the real Asiatics poured into it from the north when the great ice barrier melted at the close of the Glacial epoch.

At various periods in its later history it was under the hegemony, either wholly or in part, at one time of some one of the various Asiatic powers, at another of Egypt, and later, again, of such European powers as the Empires of Greece and Rome. Thus Western Asia has been swept times and again, almost without number, by conquering hordes and the no less severe ethnical disturbances of peaceful infiltrations, converging from every point of the compass in turn : the

people of the Turanian steppe, the Armenoid population of the highlands of Asia Minor and the Caucasus came from the north ; the Semites of Arabia, originally coming from the south, penetrated this area of confused nationalities at its north-western corner ; Egypt penetrated into Asia by the same route ; and from time to time the peoples of Asia Minor, Imperial Greece and Rome overran the country from the west. How, then, is it possible to learn anything to-day from the contents of this cauldron, filled with such an assortment of ingredients and still seething from the effects of the disturbance incidental to the harsh process of mixing such incompatible elements ! At the first glance the problem does, indeed, seem utterly hopeless : nevertheless I think that the laborious process of sifting the data relating to this land of ethnic confusion, which have been summarized so lucidly by Ripley, has not been wholly sterile. In a little book of these dimensions it is out of the question to examine all the evidence bearing upon the racial history of Western Asia ; so I must content myself here with setting forth a working hypothesis embodying the known factors, which have any direct bearing upon the Egyptian problems that have led up to this discussion. Although I have drawn largely upon Ripley for information, I shall not slavishly follow his leading, because he does not pretend to be a biologist, and some of his state-

ments concerning racial affinities are wholly untenable.

I think that Sergi and those who follow him are justified in assuming that the original population of Asia Minor and Palestine was a people akin to their contemporaries in the whole of the rest of the Mediterranean littoral. If there is any cogency whatever in the reasoning of those anthropologists who consider that the widely-scattered Mediterranean dolichocephalic people developed their distinctive peculiarities in some area widely separated from the home of the Asiatic brachycephalic people, it must follow that the Armenoid population of Asia Minor intruded into this region long after it (or, at any rate, its lowland parts and coast lands) had been occupied by the long-headed "Mediterranean" people. I do not think a consideration of the facts will permit us to accept von Luschan's view that the *earliest* population of Asia Minor was Armenoid. The evidence seems to point to the region between the Pamirs and the Hindukush as the original home of the Armenoid population; and that from this centre it spread westward beyond the Caspian and occupied the highlands of Asia Minor and its neighbourhood. Where these people originally came from, however, is not a matter of vital importance to us in this enquiry, for they were already in occupation of Armenia and Asia Minor before our story begins. It is certain that they were already

in that region before the close of the fourth millennium, for the Egyptians acquired Armenoid traits as the immediate result of their intercourse with Northern Syria, and we know that this was in progress at the time of the Third Dynasty (2800 B.C.), and possibly earlier. The strongly Armenoid Semite represented upon the ivory from King Qa's tomb takes us back before 3000 B.C.

Moreover, the old Babylonian sculptures demonstrate the fact that the earliest Semites to enter Mesopotamia and Babylonia had the Armenoid type of nose and the characteristic flowing beard at the time they intruded into the dominions of the Kings of Akkad and Sumer. Now, if the generally accepted view is true, that Arabia was the original home of the Semites, the Arab must have undergone a profound change in his physical characters after he left his home land and before he reached Babylonia. The population of Arabia had certainly overflowed into Palestine by the time of the Third Egyptian Dynasty, and probably much earlier ; and in this land they would have intermingled not only with the autochthonous "Mediterranean" population there, but also, in Northern Syria, with the Armenoid people.

But even though it be admitted that Arabs may have mixed to some extent with the people of Syria, there is no doubt that the northern

people of Semitic speech, which represents the distinctive element that made its way into Mesopotamia and Palestine and is commonly called Semitic, belongs to a different race. The big-nosed, long-bearded peoples so familiar, not only in the pictures on ancient Babylonian and Egyptian monuments (see Figure 6), but also in the modern Jews, are clearly members of the Armenoid Race, whereas the Arabs belong to another of the primary racial subdivisions of mankind.

How it came to pass that these northern people acquired the Semitic speech, which seems to have been the original language of the Arabs, is not known. But there is no more justification for calling the northern people "Semites" than there is for the modern usage of the term "Arabs" in reference to the Egyptians, simply because they were overrun by the forces of Islâm and accepted the Arabic language and faith. In Professor Clay's monograph on *The Empire of the Amorites* and Dr. Salaman's lecture on the Jews, to both of which reference is made at the end of Chapter VI, the fundamental error involved in the stereotyped interpretation of Arab immigrations into Palestine, Syria, and Mesopotamia has been exposed.

In the whole of Western Asia, bristling as it is with the manifold difficulties already hinted at in this chapter, there is perhaps no problem which

is quite so enigmatical as that concerning the origin and affinities of the Sumerians. Until quite recently there had been many—even now Halevy may have some disciples—who refused to believe even in the existence of any such people, affirming that the writing called Sumerian was nothing else than some secret hieratic script of Babylonian. But such views are now no longer tenable, for recent excavations around the head of the Persian Gulf have resolved all doubts as to the reality of the Sumerian people.

In the late Professor King's *History of Sumer and Akkad*, which is based largely upon Meyer's memoir, published in the *Transactions of the Royal Prussian Academy of Science* in 1906, the contrasts between the physical characteristics of the Semites and Sumerians are discussed. The most obtrusive distinctive features in the statues and pictures of Sumerians that sharply distinguish them from the Semites are their clean-shaven face and scalp. "The Sumerian had a prominent nose, which forms, indeed, his most striking feature, but both nose and lips are never full and fleshy as with the Semites." Some of the sculptured heads, however, conform to the same racial type as the Proto-Egyptians.

I have repeatedly referred in the last three chapters to the fact, generally recognized by ethnologists, that there is a widespread tendency among primitive peoples to exaggerate those

distinctive features with which nature has endowed them. The Armenoid peoples and those who, like the Babylonian Semites, had a large element of Armenoid blood in their constitution, took obvious pride in their luxurious endowment of hair, and in their pictures and statuary duly emphasized these distinctive features. If such analogies hold good in all cases, it would imply that the affinities of the Sumerians must be sought far among naturally glabrous people. Now the only peoples, in this region of the world, who were scantily endowed with facial hair were the Mongols, thousands of miles away on the north-east, and the Proto-Egyptians, far away on the west, with the unshaven Arabs interposed between them. But the prominent, almost Armenoid, nose of the Sumerians is quite incompatible with any suggestion of Mongol affinities, which many writers are so fond of making, in the case not only of the Sumerians, but even of less Mongoloid populations in Western Asia.

But that members of the same race as the early Egyptians extended as far as Sumer and even further east, into India in fact, is not only considered possible, but is stated almost as an established truth by Ripley, and long before him by Huxley (*Man's Place in Nature*). A great deal of ingenuity has been displayed by many scholars with the object of bringing these Sumerians from somewhere else as immigrants into Sumer; but

no reasons have been advanced to show that they had not been settled at the head of the Persian Gulf for long generations before they first appeared on the stage of history. The argument that no early remains have been found does not prove anything, not only because such a country as Sumer is no more favourable to the preservation of such evidence than is the Delta of the Nile, but also upon the more general grounds that negative statements of this sort cannot be assigned a positive value as evidence for an immigration. There can be no doubt that the Proto-Egyptians had been living in the Nile Valley for many generations before the earliest Predynastic graves known to us were excavated.

It can be accepted as a self-evident proposition that, when the early members of our species spread broadcast throughout the globe looking for eligible sites for settlement, the garden of the world, the paradise of the Ancients, precisely the kind of spot that would have attracted early man, was not left unoccupied, while all around it sites barren and uninviting, in comparison with the valleys of the Euphrates and Tigris, were inhabited. Yet recent writers talk of the Sumerians suddenly taking possession of the land of Sumer, at some time after the dawn of the Copper Age, and bringing with them ready-made a high civilization and an intimate knowledge of agriculture specially adapted to Babylonian con-

ditions, which they are said to have acquired upon the Turanian steppe, or in the deserts of Arabia, or on the beaches of the Erythraean Sea while subsisting on a diet of fish! The whole supposition is surely a *reductio ad absurdum*.

The skulls found by Pumpelly in Turkestan on the site of a settlement that was clearly Proto-Elamite were examined by Sergi, who declared them to be definitely of Mediterranean type.

I have already referred to Ripley's statement that the kinsmen of the Proto-Egyptians and the other Mediterranean peoples originally occupied the whole of this strip of Southern Asia, even extending into India. In support of this contention he urged the fact that there is a very large dolichocephalic population, Kurds, Iranians, Afghans, and others, now occupying this territory, whose presence can be explained only by some such supposition.

Andrae and Noeldeke, excavating at Fara, in the Valley of the Lower Euphrates, in 1903, found certain interesting early graves, of which, unfortunately, no full account has yet been given. King (*op. cit.*, page 26) summarizes their results in these words. The graves "consist of two classes, sarcophagus graves and mat-burials." "The sarcophagi are of unglazed clay, oval in form, with flat bottoms and upright sides, and each is closed with a terra-cotta lid." "In the mat-burials the corpse with its offerings was

wrapped in reed-matting and placed in a grave dug in the soil." "The bodies were never buried at length, for in both classes of graves the skeletons are found lying on their sides with their arms and legs bent." "The right hand usually holds a drinking-cup, of clay, stone, copper or shell, which it appears to be raising to the mouth; and near the skull are often other vessels and great waterpots of clay." "In the graves the weapons of the dead man were placed, and the tools and ornaments he had during life." "Copper spear-heads and axes were often found, and the blades of daggers with rivets for a wooden handle, and copper fish-hooks and net-weights." "The ornaments were very numerous, the wealthy wearing bead-necklaces of agate and lapis lazuli, the poorer contenting themselves with paste and shell, while silver finger-rings and copper arm-rings were not uncommon." "A very typical class of grave furniture consisted of palettes or colour-dishes, made of alabaster, often of graceful shape, and sometimes standing on four feet." "There is no doubt as to their use, for colour still remains in many of them, generally black and yellow, but sometimes a light rose and a light green."

Now, although these graves are described as being "prehistoric Sumerian" it is patent that they cannot be much earlier than the First Egyptian Dynasty, unless it be admitted that

the discovery of copper was made in two places, Egypt and Sumer, at about the same time. Dismissing this proposition as highly improbable and quite incredible, the many points of resemblance of these Sumerian graves to those of the First Dynasty in Egypt cannot be overlooked. It seems altogether unlikely that such similarity can be wholly fortuitous ; nor can there be any reasonable doubt, in face of our present knowledge of the history of copper and of the evolution of the burial customs in Egypt, that if borrowing took place it was Sumer that learned from Egypt, and not the reverse.

Since the foregoing sentences were written twelve years ago a great deal of new information has come to light to corroborate the view that the archaic civilization of Sumer (and Elam) was derived from Egypt approximately at the time of the First Dynasty. Some of this evidence I have discussed at length in the article " Anthropology " in the 12th Edition of the *Encyclopædia Britannica* (1922, page 149). The remarkable identities of primitive religious beliefs and arts (especially the technique of the painted ceramic were discussed by M. Pottier) make it certain that Elam and Sumer derived their culture from Egypt, probably in the main by sea, the incentive for the maritime adventures being the search for copper ore which they discovered in the mountains of Elam

This much, however, cannot be gainsaid: the few scraps of information we possess regarding the physical characters, habits of life, the arts and customs of the Sumerians, suggest that they were a people like the Egyptians, had similar customs, and either pursued a precisely parallel course of development, or kept in touch with Egypt's progress by means which we can picture only by inference. That the explanation of the similarities of culture is to be found in the settlement of colonies of Egyptian miners in Elam is highly probable.

I have wandered thus far from the surer ground of Egyptian relations in the hope of finding evidence, both of a positive as well as of a negative kind, that might enable me to circumscribe the area of distribution of the alien population which mingled with the Egyptians in Lower Egypt at the dawn of history.

In the last chapter I referred to some of the outstanding distinctive features of the skulls of these alien immigrants—the peculiarities of cranial form, of orbit, nose, and jaw. A short time ago I examined the magnificent series of thousands of crania, obtained in Asia, Europe, and North Africa, contained in the Museum of the Royal College of Surgeons in London and in the Anatomical Museum in Cambridge, which were generously placed at my disposal by Professors Keith and Macalister respectively; and in Asia

(Europe and Africa must be left for consideration in the next chapter) the following curious distribution was found of what I shall call the alien traits of the Giza series (or briefly the "Giza traits"). Such distinctive features were found in crania from all parts of Palestine and Asia Minor and in ancient specimens from Palmyra : but they became really common only when the series from Persia and Afghanistan were studied. Going further east, "Giza traits" were found to be fairly common in the Punjab, but were rare elsewhere in India. They were numerous in material from Southern Russia, but were found in only three or four of the many specimens from the Chinese Empire. Since the first edition of this book was written I have found skulls of this same type widespread in Polynesia and the Pacific coast of America.

If we take a map of the area of junction of Asia with Europe and Egypt, and bear in mind the fact that the Early Neolithic people of Europe seem as a rule to have avoided high mountainous districts, it will be found that the geographical circumstances tend to support and corroborate the contention, put forward in the preceding paragraphs on other grounds, that the kinsmen of the Mediterranean and Hamitic peoples overflowed, so to speak, from the Mediterranean and East African littorals into the whole peninsula of Arabia and the shores of the Persian Gulf. In

other words Syria, Arabia, Mesopotamia, and Sumer were parts of the original domain of the Brown Race.

The forbidding mountain ranges and deserts of Iran and Armenia, and beyond, formed a great barrier beyond which these dwellers of the plain did not venture except as small prospecting bands. But behind this great natural wall another race, also of short stature and brunet traits, had been evolving features distinctive of itself. In the course of ages those features of cranium and face to which I have repeatedly referred as " Armenoid " were gradually assumed, as well as another trait peculiarly distinctive of this group of peoples, the long beard, which forms perhaps the most obvious contrast between this population and the " Brown Race."

Where the original home of this " Long-bearded Race " was is not certain, although there is some suggestion that in the neighbourhood of the Pamir people exhibiting their distinctive traits are found in greatest purity. It is highly probable that their area of characterization was in Russian Turkestan ,(see Map 1, p. 81).

By the time the advance-guard of the Brown Race came into contact with the Long-beards, the latter were not only in occupation of the Armenian highlands, but they had begun to follow the line of mountain ranges still further west, across the Bosphorus to the Balkans and

into the heart of Europe, where the Alps and the highlands of Europe seemed to exercise a peculiar attraction for this sturdy race of mountaineers.

The working hypothesis that seems to have shaped itself from these considerations may now be set forth in a concise form.

The Egyptians, Arabs, and Sumerians may have been kinsmen of the Brown Race, each diversely specialized by long residence in its own domain; and in Predynastic times, before the wider usefulness of copper as a military instrument of tremendous power was realized, the Middle Predynastic phase of culture became diffused far and wide throughout Arabia and Sumer.

Then came the awakening to the knowledge of the supremacy which the possession of metal weapons conferred upon those who wielded them in combat against those not so armed. Upper Egypt vanquished Lower Egypt in virtue of this knowledge and the possession of such weapons. The United Kingdom pushed its way into Syria to obtain wood and ore, and incidentally taught the Syrians (Amorites) the value of metal weapons. These Armenoids of Northern Syria were then able to descend the Euphrates and vanquish the more cultured Sumerians, because the latter were lacking in experience of war.

The non-Semitic Armenoids of Asia Minor carried the new knowledge into Europe.

If this working hypothesis can be proved to have any solid basis of fact, it will solve a large group of the most puzzling enigmas in the whole range of anthropological enquiries.

With reference to the eastern extension of the Brown Race it is probable that the original Indonesians (both on the mainland and in the archipelago) were members of that race.

In Map 1 (p. 81) the route of the Brown Race from East Africa to Indonesia is indicated by arrows—across Arabia to Sumer (S) and Elam (E), thence via Persia to India and beyond.

For further information concerning the subject-matter of this chapter see especially the works of Meyer, Breasted, Maspero, and Ripley, already quoted at the end of previous chapters.

Also consult Meyer's *Sumerier und Semiten in Babylonien* (Abhandl. d. k. Preuss. Akad. der Wissensch., 1906); King's *History of Sumer and Akkad*; and the notes published by Andrae and Noeldeke in the *Mitteilungen der Deutschen Orient-Gesellschaft* from 1902 onwards.

For bibliographical references to recent literature see Dr. H. R. Hall's article, "Archæology" in the first supplementary volume, *Encyclopædia Britannica*, 12th Edition, 1922, page 177.

CHAPTER IX

THE MANNER OF THE SPREAD OF EGYPTIAN INFLUENCE

IN the last chapter I attempted to follow to its source the alien strain which made itself apparent in Egypt at the dawn of history ; and we saw how difficult it was to find any clear pathway amongst the amazing tangle of conflicting races in the threshold of Asia. However, there seemed to be a definite track, strewn with the distinctive clues of the people we were following, which led us into the vicinity of Persia and Afghanistan and especially to Turkestan.

There is now a general consensus of opinion amongst anthropologists that for long ages there was a movement of Armenoid people into Europe both south and north of the Black Sea, whose descendants form the Alpine and Slav populations, came from Asia to Europe.

It is quite certain that stragglers from Asia had been making their way into Europe for a long time before the first really big immigration, which brought the Neolithic Age to a close.

Among the manifold changes which this infiltration of Asiatics produced in Europe there was one custom, the practice of cremation, which has attracted a considerable amount of attention. It is so foreign to all the ideas and customs of the Neolithic population of Europe, whether we consider the short brunets of the south or the tall blonds of the north, that it in itself affords most positive evidence of the introduction of some alien influence into Europe at the beginning of the Age of Metals.

In his great book on *The Races of Europe* Ripley has given a masterly summary of the convincing evidence, which clearly demonstrates the source of this stream of Asiatic immigration into Europe in the highlands of the Pamirs, north of the Hindukush; and it came as a great surprise, when I began to follow the track of the people possessing "Giza traits," to find that I was led westward to an area of greatest concentration of these traits, in the neighbourhood of the spot where, thirty years ago, Topinard, on the basis of Ujfalvy's illuminating researches amongst the Galcha tribes in the Pamirs, located the original home of the so-called "Alpine" or "Celtic" broad-headed race of Europe.

When I realized this parallelism between the histories of Egypt and Europe; how that in each case the earlier dolichocephalic population of the country became diluted with a broader-headed

alien population of short, sturdy brunets, roughly coinciding with the introduction of metals ; and, moreover, that the alien population in both cases probably came from the same locality in Asia, it became imperative that a direct comparison should be instituted between the Early Bronze Age remains of Europe and the " Giza population" in Egypt. When this comparison was made there was no longer any doubt in my mind that the Asiatic infiltrations into Europe and Egypt were certainly only the divergent streams of people of the same race. But although these broad-headed people were moving into Europe from Asia Minor at the time some of their kinsmen were first intruding into Egypt it was probably not until more than a millennium later that the invention of the alloy bronze was made.

It was at first somewhat puzzling to find a much more intimate likeness to the Giza people in the Bronze Age population found in the Round Barrows of Britain than in the European material. But the explanation seems obvious enough, if the geographical circumstances be taken into account. The great Asiatic stream passed across Asia Minor to the Balkan Peninsula (no doubt, in part, on the northern side of the Black Sea also) and thence to the heart of Europe. Egypt was off the main track, and so received only a relatively small contribution of the broad-headed element to modify her prevailing narrow-headedness ; and

Britain, at the remote western extremity of Europe, was shielded from the full blast by the whole breadth of the continent.

Thus the composition of the racial mixture in Britain and Egypt presents many analogies: the ingredients of the blend were essentially identical, if for the moment we neglect the effects of the admixture of the broad-headed immigrants with the tall dolichocephalic Northern Europeans before they reached Britain; and, in virtue of the geographical situation of the two countries, the proportions of these ingredients were not unlike. This, however, is not the whole explanation nor even the chief factor that is involved. There were many varieties of the Armenoid population of Western Asia. The group that played the largest part in the Mediterranean area (including Egypt) had relatively narrow heads, a typical example being shown in Figure 10. A very considerable element in the Bronze Age population of Western Europe and the British Islands consisted of people of this type—to whom I referred some years ago as “Maritime Armenoids,” in reference to the prominent part they played in early sea-going enterprises.

It is not a little amazing to find serious anthropologists raising objections against this interpretation of the process of mixing in Britain (and the same statements apply to Egypt with equal force, or rather lack of it) on the plea that

bronze implements are often found buried with narrow-headed people, whose remains had not been cremated. That such flimsy statements as these should be served up as arguments to cast discredit on Thurnam's famous dictum, "Round barrow, round skull," can only mean that there must be a singular poverty of valid objections to the commonly accepted account of the coming of broad-headed man. Neither Thurnam nor any other serious student was so stupid as to pretend that, when a few broad-headed people came to Britain and taught its dolichocephalic population new burial customs and the use of bronze, all the narrow-headed people at once vanished, not leaving even their skulls to reveal their former existence ! The bulk of the British people (as also was the case with the Egyptians) always remained dolichocephalic.

The practice of incineration, brought into Europe by the Asiatics, obtained no foothold in Egypt at any time, and in Britain it did not wholly displace the custom of inhumation. Thurnam's dictum means that round skulls are distinctive of round barrows, not that every skull from a round barrow will necessarily be broad—an altogether inconceivable proposition ; for we know that the major element in the constitution of the Bronze Age people in Britain, like that of the "Giza population" in Egypt, was dolichocephalic.

It may be asked why, if the broad-headed people who entered Europe at the end of the Neolithic period were part of the same racial stream with which the population of Egypt was being diluted in the Pyramid age, their influence upon the customs of the two countries was so fundamentally different. The Asiatic immigrants carried the knowledge of metals to Europe, but not to Egypt, for the simple reason that they obtained this knowledge indirectly from the Egyptians and simply handed it on to Europe. The so-called "Alpine Race" imposed its burial practice of cremation upon Europe, but not upon Egypt. Fifty centuries ago, when the events we are discussing took place, Egypt was the one great civilized State that had reached maturity; her customs were already fixed by rigid conventions, and the traditions and the practices of centuries were not to be overthrown at the wishes of a few immigrants from some weaker State still in the infancy of civilization. In Europe the circumstances were entirely different: the Asiatic immigrants were more numerous, and there was not such a marked contrast between the two cultures as secured to Egypt an immunity from the disturbance of its own customs. Moreover, the Asiatics in Europe were the possessors of the knowledge of the secret of the prowess of the Egyptians, which gave them the power to gain an ascendancy over Europe and impose

their own customs upon its people, where persuasion or example alone may have been impotent.

Egypt did not exert its influence upon Europe and its population wholly through the intermediation of the so-called "Alpine Race." There were other channels by which the knowledge of her arts and crafts could reach the western world, without the help of broad-headed people as middlemen—for there was the northern coast of Africa as a western pathway from Egypt; and from it ferries to Crete and Greece, to Sicily and the isles and Italy, to Sardinia, and, last and easiest of all, to the Iberian peninsula. But there can be no doubt that most of the diffusion of culture was effected through Cretan and Phœnician channels.

Within recent years the evidence that has been accumulated by investigators working in the various localized fields of this wide area—Tripoli, Tunis, Algiers, Morocco—in Crete and the Ægean; Sicily, Malta, Pantellaria, and Italy; Corsica, Sardinia, and the Balearic Islands; Spain and Portugal; and the Canary Islands—all falls into line and tells one consistent story. Much of the evidence in contemporary literature that seem most puzzling and paradoxical to the worker whose gaze is riveted on one small speck in this wide domain, or most hopelessly bewildering to the compiler of widely scattered observations,

who has no intimate familiarity with the progress of events in Egypt, finds a ready explanation in the light of the history of those events in the Egyptian Delta, which we have been discussing in the last few chapters.

When examining the distribution of "Giza traits" in the large series of skulls mentioned in the last chapter, I found them fairly abundant in every series of specimens, both ancient and modern, from every part of North Africa, as well as from the Canary Islands, which may be regarded as the outlying western extremity of the North African ethnic domain.

There is an abundance of evidence of other kinds which supplements and confirms this observation. These data are none the less interesting and valuable because in many instances they came as a surprise to their collectors, who were puzzled to explain them.

The great value of these observations to us in this investigation is the evidence they afford of the fact that the different groups of people settled along the Mediterranean littoral of Africa—in Egypt, Tripoli, Tunis, Algiers, and Morocco—and in the Canary Islands were in free intercourse one with another, so that not only was there a spread of knowledge and of culture, but also a diffusion of blood throughout the whole group. In other words, the alien traits of the immigrants in the Delta were disseminated not only throughout the

population of Egypt into Nubia to the south, but also to the west, along the sea-coast, both by land and sea, until the whole population of North Africa became permeated with the influence of this mixed population of immigrants.

Von Luschan and others frankly recognized this influence in the Canary Islands, where they refer to the Armenoid strain in the population; and before him de Quatrefages and Hamy published pictures of Guanche crania, which are indistinguishable from those obtained at the Giza necropolis. In the Guanche skulls in the Museum of the Royal College of Surgeons all the peculiarities of cranial form, orbits, nose, and jaw that occurred in the people of Memphis at the time of Pyramid-builders are found exactly reproduced.

Sergi has also recognized the widespread occurrence of these alien Asiatic skulls, which he distinguishes by the term "sphenoid," throughout the whole North African littoral. The presence of this broad-headed element in the population of North Africa has had a very disturbing influence upon the views of many anthropologists. It is seen in its least mixed form in the little island of Gerba and on the adjoining mainland of Tunis, but it is also widespread throughout the Berber or Libyan population. H. Martin compared it to the Breton type; and, as this is "Alpine," it quite accords with what has been written

earlier in this chapter. Bertholon was greatly puzzled by these North African brown brachycephalics ; and from the reading of his memoirs, Keane was led to put forward the curious suggestion that the European brachycephalic people came from Africa ! In other words, he seemed to think that Africa may have been their original home.

One of the most instructive illustrations of the close bonds of affinity that link the Berber population of North Africa to the Egyptians is afforded by the memoir entitled *Libyan Notes*, written by Dr. Randall-MacIver, with the help of the late Mr. Anthony Wilkin ; although the authors drew from their researches a conclusion that is almost precisely the reverse of the meaning their data convey to me.

It is only right to explain that Randall-MacIver was comparing the modern Algerian and his dolmen-building ancestors on the one hand with the Proto-Egyptian on the other : and he came to the conclusion that " the prehistoric Egyptians were not Libyans." But if he had employed the same method in Egypt, and substituted Lower Egyptians for Algerians, he would have reached precisely the same result ; and presumably he would have had to choose between the two alternatives of questioning the validity of his methods or of saying that the " prehistoric Egyptians were not Egyptians." There can be

no reasonable doubt that the Proto-Egyptians were the kinsmen of the Proto-Libyans; but both were modified, probably about the beginning of the third millennium B.C., by having an element of brachycephalic Asiatic grafted upon them.

The interesting series of crania obtained from the dolmens of Roknia by General Faidherbe has been reproduced in *Libyan Notes* (Plates xviii and xix), and they give a most instructive demonstration of the striking similarity to a random collection of Egyptian skulls of the period roughly contemporaneous with this ancient Berber material. While some of them are indistinguishable from Proto-Egyptian skulls, two of the series (Nos. 3 and 4) are typical members of the same alien series as were found at Giza; and the rest (the majority) show the distinctive blend of Proto-Egyptian and "Giza" traits that we call simply "Egyptian."

Sergi has already called attention to the Asiatic elements in this series; but as he had had no opportunity of learning that the cranial form which he calls *beloides ægyptiacus* is not Egyptian, but Asiatic, he has unduly minimized the latter influence in North Africa.

The evidence that has been accumulating during the last few years, archæological and anatomical, all points to the conclusion that early in the Neolithic period the population of the northern

littoral of the Mediterranean and the islands came in great part from the African shore. The general evidence in support of this view has been so fully set forth and summarized by Sergi, Ripley, and others, that I need not discuss it here : and the data for the special cases of Crete, Italy, and the neighbouring islands have been clearly explained by Mr. and Mrs. Hawes (*Crete, the Forerunner of Greece*, published in this series), Dr. Duncan Mackenzie in his article on Cretan Palaces, and more especially Mr. T. E. Peet in his valuable book summarizing the present state of knowledge regarding *The Stone and Bronze Ages in Italy* and the islands.

I shall assume that the whole of this Neolithic culture of the Mediterranean littoral was originally developed by one people, which became scattered in lands widely sundered by the great midland sea, where each tended to become specialized in a manner peculiar to itself. But at the end of the Neolithic period came the dawn of the Age of Metals—the Æneolithic period of Italian anthropologists—when the new knowledge born in Egypt came to each of these Neolithic centres and inaugurated a new era of progress just as at an earlier period the Neolithic culture itself and the people who practised it were diffused in a westerly direction from Egypt. It still has to be explained how and by what means the new culture was spread abroad. The events which we

have been following in the preceding pages throw a flood of light upon these perplexities, as I shall attempt to indicate in the next chapter.

The literature relating to North Africa will be found summarized in Deniker's *Races of Man* and Keane's works.

CHAPTER X

EGYPT'S WORLD-WIDE INFLUENCE

EGYPT exercised a twofold influence upon the development of European civilization. By virtue of her own precocious acquirement of a culture far surpassing that of any of her contemporaries she came to occupy a dominant position ; and there can be no doubt the people who introduced the Neolithic culture into Europe derived most of its elements directly or indirectly from Egypt, which thus affected at their source the very springs of European civilization.

In a previous chapter it has been seen that her influence was brought to bear in a second and indirect manner, when soon before 3000 B.C. Egyptians ventured on foreign enterprises, and, incidentally, while searching abroad for copper ore and gold, taught the Asiatics the value of metal weapons, which knowledge gave them the passport into Europe and the means of inaugurating one of the really great epochs in the world's history.

The power wielded in this way, perhaps unconsciously, by Egypt was manifold in its manifestations, and spread over a very wide span

of time. It must have begun to have effect in Neolithic times ; as we shall see in the following pages, in Early Dynastic times it became a force, whose range was limited only by the bounds of the world of that remote civilization. At every epoch in later ages, at one time through the influence of the Jews and other Asiatics, at another through the intermediation of the Greeks and Romans, and still later of the Arabs, the world at large, and especially Europe, has received the impress of Egyptian civilization, in its customs, its arts and crafts, its medical and surgical knowledge, and even in its beliefs and its literature.

There is only one instance of the operation of this third category of Egypt's directive power that the limitations of space will permit to be discussed here. It is one to which I have already referred in the first chapter : but I come back to it again because it serves a second purpose, namely, of throwing a sidelight upon a much misunderstood phase of the *Æneolithic* period, which has been a constant source of difficulty for many years.

For my purpose the simplest and most illuminating specific problem of the incoming of the *Æneolithic* period is that presented in the case of Italy. Precisely those contrasts in the mode of birth of the Bronze Age and its accompanying circumstances in different parts of the peninsula,

which reduce many scholars to despair of seeing any order emerge from the puzzling confusion, are really the clearly blazed sign-posts pointing out the pathway taken, not only by Italy, but by the rest of the Mediterranean peoples also, when emerging from the Stone Age.

In his admirable digest of the literature relating to the transition from the Age of Stone to that of Bronze, Peet has set forth these difficulties quite frankly. After telling us that the Neolithic people knew neither the dolmen nor the rock-hewn sepulchre, and pointing to evidence which suggests the *Æneolithic* period witnessed the simultaneous appearance in Italy and the islands of the rock-tomb and the megalithic monument, he makes the statement that "we have no particle of evidence for determining the relation" of the one to the other.

Although he justly discards the suggestion of Pigorini that the complete absence of these structures in North Italy is due to the lack of the necessary material, and explains their presence in the south and in the islands by the statement that this region "from its position may well have become subject to the influence of some such movement from Africa to Europe as that by which Montelius explains the dolmens of West Europe and Scandinavia," he "cannot yet definitely say whether either was brought to Italy by an immigration of new people." Moreover, "internal

evidence has as yet given no clue as to the place of origin of either type."

He goes on to explain the still more difficult aspects of the racial problems involved in this discussion. If the new customs came from across the sea, did new immigrants introduce them, or were simple trade relations responsible for their entry into Italy? Against the former is the absence of any evidence of the coming of any new people: whereas the second proposition is not a credible explanation, for a people are hardly likely to change customs so sacred as methods of burial on mere hearsay. He sums up this discussion with this statement: "The only certainty is that, until further excavation has been carried out, Italy can prove little or nothing with regard to this most difficult of problems."

But if the study of the Italian material is so puzzling to those who attempt to solve its problems without reference to events that were happening elsewhere, those who look across the Mediterranean from Egypt are filled with gratitude for Peet's most useful and illuminating complement to the Egyptian side of the story.

The foregoing paragraphs in the original edition of this book initiated a very fruitful discussion, the results of which I have examined in detail in a memoir on "The Evolution of the Rock-cut Tomb and the Dolmen" (*Essays and Studies pre-*

sented to William Ridgeway, 1913, pages 493-546) in demonstration of the Egyptian origin of the megalithic culture.

In his monograph on the *Early Dynastic Cemeteries of Naga-ed-dêr*, which forms the archæological basis of this book, Reisner has given a convincing account of the immense influence the invention of metal tools exercised upon the development and scope of the arts and crafts in Late Predynastic and Protodynastic times in Egypt. The new implements were put immediately at the service of the stonemason and the carpenter, who soon acquired an extraordinary skill in working stone and wood. The religious beliefs of these Early Egyptians were such that these highly skilled craftsmen put their best work into the construction of funerary monuments. The humble pit-like grave scraped in the sand soon gave place to the rock-cut chamber or the more imposing tomb, built of gigantic blocks of stone, as is witnessed by the Pyramids and the temples attached to them.

The newly-acquired mastery over the hardest materials, which the invention of metal tools secured, stimulated the Egyptian craftsman in the display of his abilities. In his zeal he simply ran riot in stone. He created the vastest monuments the world has ever seen; and alongside his Pyramids he built temples consisting of colossal blocks of granite, limestone, and other

materials. The sculptors of Khephren's time carved out of the solid rock, upon the eastern side of his Pyramid at Giza, a gigantic representation of the head of the King himself on the body of a lion (as Reisner has shown) ; and so created the Sphinx, which has been one of the wonders of the world for forty-six centuries.

The importance of the sun in the Egyptian pantheon became greatly enhanced during the Fifth Dynasty under the influence of the priesthood of Heliopolis. The kings of the Sixth Dynasty built temples to the sun-god *Re* (as Borchardt's excavations at the Pyramids of Abusir have shown) and in each of them erected a column pointing to the sky.

Thus at the commencement of the historic period the Egyptians were building vast stone monuments of varied forms; primarily as sepulchres and secondarily as temples; and it is of the utmost importance in this enquiry to emphasize the fact that every stage in the evolution of this craft has been revealed in Egypt, and that the art of stone-working on a big scale was one of the results of the invention of metal chisels.

Megalithic monuments in other countries do not, as is commonly supposed, represent the really early stages in the art of building, but attempts on the part of less cultured people to imitate the finished products of the Pyramid Age in Egypt. The latter were constructed after metal imple-

ments were invented : but people in foreign lands who had not yet learned to make or use copper tools constructed monuments of rough blocks of stone. The evidence in support of this explanation will be found in my essay on "The Evolution of the Rock-cut Tomb and the Dolmen" (*op. cit. supra*).

Meyer tells us in his History that at the beginning of the Dynastic period Egypt included that strip of the Mediterranean, west of the Delta, known in later times as Marmarica : this would form a link between the Nile Valley and Tripoli, and through it with the rest of the northern shore of Africa (see Map 3). In the last chapter I discussed the westward diffusion of the Delta population until it reached even to Mauretania and the Fortunate Isles. There can be no doubt that a similar movement, both of peoples and customs, had been taking place long before such tell-tale alien skulls were left to provide the tangible evidence of these migrations. But though there may not be a persistence of human bones to demonstrate this intercourse between the neighbouring nations there is man's handiwork, which tells the same story.

The account of the Æneolithic remains in Pantellaria, Malta, Sicily, Southern Italy, and Sardinia, which Peet has given so clearly in his book, is complementary to the Egyptian evidence in almost every detail. Rock-cut tombs and

megalithic monuments appear, apparently simultaneously, at the dawn of the Age of Metals: there is no evidence of any change in the racial traits of the people to associate with this cultural change, although it is patent that the new customs must have come across the sea, directly or indirectly, from the African shore.

The inspiration to make rock-cut sepulchres came from Egypt (see Map 3, A), and such tombs were not made until the close of the Neolithic because they were not invented in Egypt until the latter part of the Second Dynasty. There was no pronounced change in the physical characteristics of the people, because the people on both sides of the Mediterranean at that time were of the same race, Proto-Egyptians and Proto-Libyans, Proto-Siculans and Proto-Italians being all united by the crimson thread of kinship. Nevertheless Sicily was being subjected to the same kind of Asiatic infiltration as we have seen in Egypt and the rest of North Africa, for Sergi found among the skulls obtained by Orsi from *Æ*neolithic tombs some "foreign shapes, which he judged to be of Asiatic origin, chiefly from the region of the Caucasus and Armenia" (page 277).

The finding of such alien skulls scattered throughout the more westerly parts of the domain of the Brown Race supplies tangible evidence of the western movements of the people themselves, and not merely of ideas and culture.

But as by this time the population of Crete and Egypt had received a very considerable infusion of these Armenoid people from Anatolia and Syria respectively, the finding of such types in Italy and the western Mediterranean means nothing more than that the Cretans or the Egyptians were exploiting the west. Ideas and culture do not spread among uncivilized people except by the settlement amongst them of those who practice the new arts and hold the new beliefs. But these settlers need not be great in numbers.

But, it will be asked, how can we explain the dolmens? The Italian evidence, taken in conjunction with what we know of Egypt, suggests the obvious solution.

I have called attention to the fact that the Egyptians were building a variety of stone edifices on a large scale; and when we recall the marvellous technical skill displayed at the beginning of the Fourth Dynasty (*circa* 2900 B.C.) in building the Pyramids, and in moving those vast masses of stone found, for example, in the temple of Khephren, the so-called "temple of the Sphinx," we can understand why Egyptians who died abroad when exploiting foreign sources of wealth would strive to imitate these impressive monuments, without, however, possessing the technical skill to construct any edifice at all comparable with them.

It is not necessary to postulate any great racial movement. A few miners working the ores of copper or searching for some other materials would suffice to introduce such practices, which they had got, either directly or indirectly, from the Egyptians.

It must be something more than a mere coincidence that these megalithic monuments first make their appearance in association with rock-cut sepulchres, and in the *Æneolithic* Age, i.e. shortly after these Mediterranean lands had adopted the Egyptian use of copper, and of the Egyptians' new practice of hewing rock tombs and building megalithic temples. Archæologists tell us that copper was introduced into Crete about the year 2800 B.C. If the *Æneolithic* Age began in Sicily and Southern Italy a little later it would be in full accord with the foregoing argument, especially as the Cretans may have been the agents who carried these practices to Italy.

There is one scrap of evidence, which proved very puzzling to the Italian archæologists, that lends strong support to my contention of the Egyptian derivation of all these changes that mark the sudden advent of the *Æneolithic* period in South Italy and Sicily. For the Italians, like the Egyptians, gave up the earlier custom of burying their dead in the crouched attitude, and placed them fully extended in the rock-cut tombs. In Egypt, however, there was a long interval

between the invention of the rock tomb and the relinquishing of the flexed posture, an interval of several centuries over which the process of gradual evolution was spread, and in which the feelings of the people were able to become reconciled to the change without any sudden violation of their conventional ideas. But in Italy the custom must have been borrowed, directly or indirectly, from Egypt, because the change came suddenly, and along with the rock tomb and the Æneolithic period. Yet occasionally there is seen some evidence of the transitional stage. Thus Peet describes a rock tomb at Cantalupo Mandela, in Middle Italy, containing two skeletons, one extended, the other slightly contracted.

Reisner and Mace have described the practice of extended burial as beginning in Egypt in the Fourth Dynasty, and not becoming common until the Sixth: this would suggest the improbability of the introduction of these customs in Italy much before the year 2500 B.C.

The apparent paradox that proved so disturbing to Peet, namely, the sudden change of burial customs in South Italy without any evidence of a change of race, is explained by this Egyptian evidence, and is a welcome confirmation of the reality of Egyptian influence, even if the Cretans were the agents by whom it was diffused to the west.

Thus North Africa and Southern Italy were brought within the sphere of Egypt's cultural influence during the Pyramid Age. But none of these western populations that took their inspiration primarily from Egypt slavishly followed their teachers. One of the most interesting and instructive features of all these Mediterranean centres of culture—Crete, Pantellaria, Malta, Sicily, Southern Italy, Sardinia, Mauretania, and the rest—is the manner in which each developed in its own distinctive manner the common heritage, and evolved from it a culture which was peculiar to itself. Thus in Crete, for instance, the archaic culture, though unquestionably African in origin, developed along distinctive lines, which justify us in regarding it as something distinct from the Egyptian and the Libyan, and worthy of the special designation "Cretan." And, similarly, when at a later period Crete received the new knowledge of metals and entered the Copper Age, she assimilated the new learning, and evolved from it a civilization quite peculiar to and distinctive of herself: this is what Sir Arthur Evans has called the Minoan culture.

At the dawn of civilization Crete occupied a unique situation, which was exceptionally favourable to the development of a high culture; and there can be no doubt that she seized her advantage, and turned it to the most profitable account. Her geographical situation as a sea-girt isle was

such that, while being exempt from the dominating and overshadowing influence of Egypt, she profited by both of the fertilizing streams of inspiration that had their source in Egypt. Crete must have been brought under the direct influence of Egypt by maritime intercourse, possibly by Egyptian sailors searching for gold or copper at the eastern end of Crete.

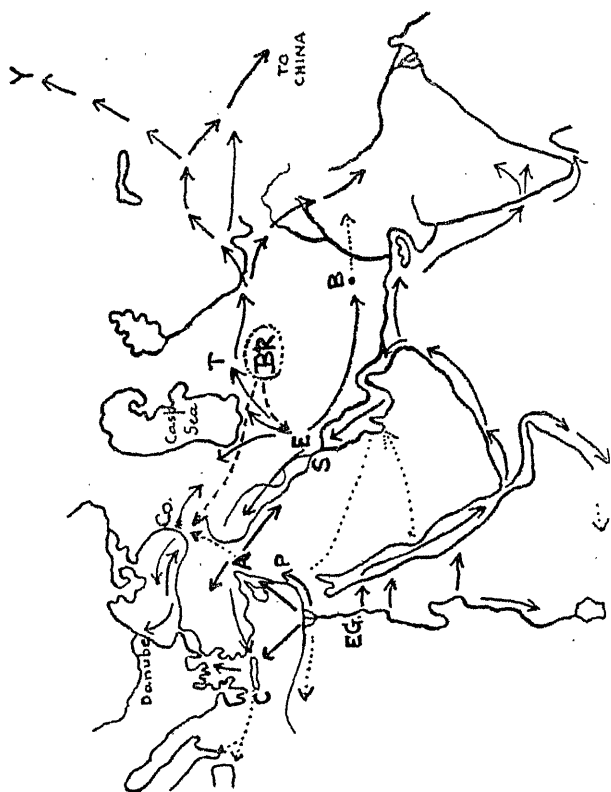
But, unlike the other islands that we have been discussing, Crete was also affected in a most intimate way by the eastern (northern) stream of culture from Asia Minor, where the influences of Mesopotamia and Syria were blended with that of Egypt.

Boyd Dawkins and Hawes (*Crete, the Forerunner of Greece*, Chapter II) examined series of skulls from Crete and found amongst a majority of crania precisely similar to those of the Proto-Egyptians, a few typical examples of those broader-headed Asiatics, such as we have found scattered throughout the whole of the domain under consideration ; and we can have no doubt that these people began to make their way into Crete, from Anatolia perhaps, at the time when the diffusion of the knowledge of copper was beginning.

Italy was much further removed from the centre of cultural influence than Crete, and in all probability received the stimulus to develop its megalithic culture only as the result of secondary

radiations from Crete, and possibly also from Africa. For, as Sergi says, when expressing not only his own views, but also those of Montelius : " It appears that there has been a movement of culture passing from one spot to another, as from a focus of production ; but on the other hand, there appears to have been as it were the movement of a wave propagated from a centre, in such a manner that the waves, as they became more remote from the centre, grew broader and less marked, until they disappeared, leaving only the signs of the movement." The centre of distribution postulated by Sergi was located in Egypt.

Although the evidence is quite definite and conclusive that it was the invention of metal tools in Egypt which was responsible for the first efforts at working stone on a large scale and the building of stone edifices, it does not follow that all the early stone buildings and monuments in other lands were made of materials cut and worked with metal tools. The knowledge of the Egyptians' architectural triumphs and the incentive to copy them probably became diffused among the sister nations along the North African littoral long before these peoples had learned the new craft of metal-working : moreover, even when they had obtained the new tools, they had still to acquire the skill to use them. But long before this schooling was completed it is more than probable that Egyptian miners in Libya, lacking



MAP 3.

Map to suggest the chief lines of diffusion of early culture from Egypt (EG) directly to Crete (C) and Syria (the Amorite territory at A), to Palestine (P), down the Red Sea to East Africa, Southern Arabia and Sumer (S), Elam (E) and India. From Elam there was a spread of culture to the Caspian and Turkestan (T) and to the home of Bronze working of Khorassan (BR), to Syria (A), to Baluchistan (B). From Turkestan there were lines in diffusion to the Yenesei (V) in Siberia, to China and India. The relations of the Amorite Country (A) with Mesopotamia, Anatolia and Colehis (Co) are suggested.

the skill of the stonemasons of their homeland, erected buildings with the rough blocks of stone, shaped by the forces of Nature or their own rude efforts, by pounding and chipping the natural masses with lumps of basalt or other hard rock.

The varieties in the form of the Egyptian monuments were reproduced in the dolmens, menhirs, cromlechs, and all the other forms of rude architecture. The distribution of the megalithic monuments and other stone buildings that have been assigned to the same age bears ample witness both to the source and the lines of spread of what Montelius and Sergi call the western stream. But a similar influence was diffused from Egypt not only towards the west, but also to the east and north, to Palestine, Syria, Asia Minor, and across the Black Sea to the Caucasus and Northern Persia.

I have already referred to its spread through Tripoli, Tunis (and the Mediterranean islands and Southern Italy) into Mauretania, where the art of building megalithic structures took root and developed exceedingly, specializing along lines peculiarly distinctive of this real home of the dolmen, as distinct from its Egyptian forerunner, the more finished, but far more ancient, stone tomb and mortuary temple. Ancient mariners carried the new culture to Sardinia, the Balearic Islands, and passed round the Iberian peninsula to Gaul and Britain, and up the Frisian coast to

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Denmark and Scandinavia. The whole of this extensive itinerary was blazed with a great variety of stone monuments and buildings, thousands of which remain to this day to point the way one of the chief elements of which our own early civilization was compounded reached Western Europe from the place of its origin in distant Egypt.

Earlier in this chapter evidence was cited which seemed to point to the Sixth Egyptian Dynasty as approximately the time of the commencement of this western diffusion of megalithic culture. By that time we know from actual observation that the population of the Egyptian Delta was thoroughly permeated with Asiatic (Armenoid) elements. Tangible evidence of the fact that the effects of this admixture spread west, even as far as Mauretania and beyond, is to be found in the skulls obtained from Tunis, Gerba, Sicily, Algiers, Morocco, and elsewhere. It is thus possible that a certain number of the Asiatic traits ("Armenoid," "Alpine," "Celtic") in the population of Western Europe and Britain reached there by a very circuitous course, which passed in succession either through Palestine, Egypt (Delta), Tripoli, Tunis, Algiers, Morocco, and thence into Western Europe, or, more probably, by sea.

But the bulk of the Asiatic element in the European population entered the continent by

the direct route, from Asia Minor to the Balkan Peninsula, and no doubt also by a second way, passing north of the Black Sea; and thence moved west towards the Atlantic. They came not as one compact horde to witness the end of the Neolithic Age and inaugurate the new culture of bronze, but as a series of waves, sometimes in the form of peaceful infiltrations, at others of military invasions, which continued to beat upon the shores of Europe for more than thirty centuries.

In a previous chapter I made the suggestion that the commonly supposed coincidence of the advent in Europe of the broad-headed people (and their customs) and the Bronze Age might be explained by the hypothesis that it was the power given them by the Egyptians' invention of copper implements centuries earlier and the discovery of the alloy bronze, probably in Khorassan about 2500 B.C., which enabled them to enter Europe in force, and impress their customs upon so large an extent of its territory. But if the broad-headed people were already in Asia Minor and North Syria when the Protodynastic Egyptians first went to the Lebanons to get timber—and the features of the Giza skulls are positive evidence that the Armenoid people were actually there—then we have no reason to assume that Armenoids may not have been crossing the Hellespont into Europe for many years

before they came into touch with the Egyptians and learned how to work metals. So that there need be no cause for surprise because the remains of Asiatic people have been found in European graves (and especially in the Balkan and Danube regions) at a time when these places were in the Neolithic phase of culture. But my thesis is that the acquisition of metal implements by the people of Asia Minor, somewhere about 3000 B.C., gave them the power to establish themselves in Europe *in great numbers*, and to impress their own customs *by force* upon the populations of the territories they occupied.

It has ever been a difficulty to explain why most of the territories in Europe occupied by these Asiatic immigrants should be devoid of megalithic monuments. At first sight this difficulty may appear to be still further accentuated by my hypotheses, that both the megalith-builders and the copper-workers drew their inspiration from Egypt.

It must not be forgotten, however, that the Egyptians had no direct connexion with the immigration of the Bronze Age people into Europe, which was a secondary radiation of culture from Anatolia a millennium later than the introduction of copper working there. The invention of bronze was an Asiatic achievement which probably took place in Khorassan, and the Bronze Age culture was a secondary diffusion

from Asia into Europe. The maritime diffusion of the bronze culture from the Ægean around the whole European littoral, as far as the British Isles and the Baltic, must be distinguished from the Central European spread.

For long after the invention of bronze in Khorassan (the evidence in support of which I have given in detail in the supplement to the *Encyclopædia Britannica*, 1922, article "Anthropology," page 151) the influence of this great event was making itself felt in Europe by the exploitation of the Danube area and Central Europe, and also by Cretan and, later, Phœnician seamen on the Mediterranean and Atlantic coasts.

At the beginning of the Bronze Age in Scandinavia some of the ancient mariners cut upon the rocks pictures of the ships (Figure 14) which had conveyed them from the south; and they afford a most convincing demonstration of the origin of the culture which these sailors were distributing. For the vessels were characteristically Egyptian in type, and their design can confidently be referred to the New Empire (1500 B.C. and later) for its inspiration. The same peculiar type of vessel (A) has survived until to-day on the great lakes in East Africa (Uganda and Tanganyika territories).

There are now good grounds for believing that already in the Pyramid Age Egypt was exploiting Palestine, Syria, and the Taurus region for

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metals, timber, resins, et cetera ; and that the ancient stone monuments found not only in these places but also in the Ægean, in various parts of Asia Minor, and in the Caucasus, represent the work of miners of this and later ages searching

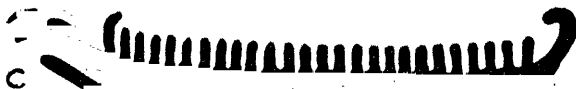
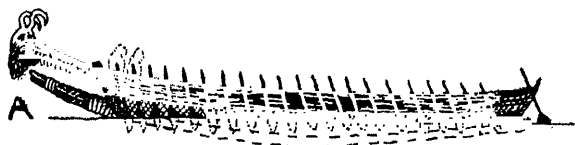
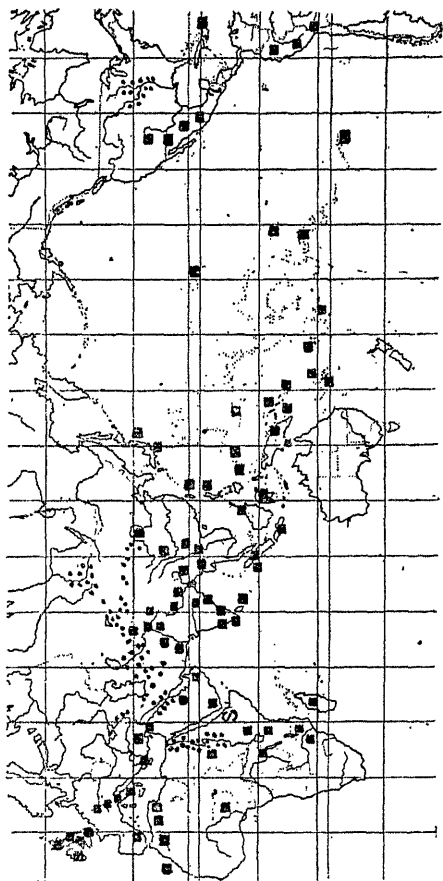


FIGURE 14.—Pictures of three boats, Modern East African (A), Ancient Egyptian (B), and Bronze Age Scandinavian (C).

for copper or gold in Phrygia, Ionia, and Colchis. Quite early in the third millennium it is probable that these mining prospectors who were exploiting the Caucasus had wandered as far as the southern shores of the Caspian, where no doubt they met men who had come on the same quest

from Elam and Sumer, and left their traces so indelibly at Anau in Turkestan, where they were recovered by Professor Pumpelly. From Turkestan the work of prospecting for gold, copper, jade, turquoise, and carnelian led to widespread diffusion of culture, spreading out in far-flung radiations step by step to the headwaters of the Yenesei in Siberia, to the Shensi Province of China (where it initiated the distinctive civilization of China), and to the Punjab in India. But if this indirect influence of Egyptian civilization was thus diffused across the greatest of the continents, it had an even greater extension by sea. I have already referred to its diffusion along almost the whole extent of the European and North African coasts, and the littoral of the Erythraean Sea from Somaliland to the head of the Persian Gulf. But in course of time the sailors on these coasts, using ships in which the Egyptian designs of the Pyramid Age still survived, pushed south as far as Madagascar and Mozambique, and east as far as the Malabar coast and Ceylon. From Southern India, after Egyptian and Babylonian civilization had been only partially assimilated, ancient mariners pushed out to Burma, Indonesia, and Indo-China carrying, again in ships of Egyptian design, a peculiar mixture of elements of Egyptian, Babylonian, and Indian civilization, such for example as Egyptian methods of mummification and stone-working,



MAP 4.

Mr. Perry's map to show the geographical distribution of primitive irrigation (dots) and terraced cultivation (squares), which is a modification of the early Egyptian system of irrigation. This is an objective demonstration of the world-wide diffusion of a practice invented in Egypt.

Babylonian forms of step-pyramids and stories of the flood, Indian designs and beliefs. Nor did the spread stop there. To Eastern Asia and the Melanesian Islands it was next diffused; and at the commencement of the Christian era Polynesian sailors distributed some of the elements of this ancient civilization, which in its long journey had suffered much from decay and degradation, to the far-flung isles of the Pacific Ocean and to Central America and Peru, where it took on for a time a new and luxuriant growth and assumed strangely exotic forms. But eventually, like every other culture which was not being continually reinforced by the influence of the home of civilization, it rapidly deteriorated; and in the fifteenth century, when the Spaniards arrived in America, its inspiration was exhausted and it was almost moribund.

Egypt was not only the inventor of civilization, but for several millennia afterwards it continued to be the inspiration of the progressive development of her original heritage to the world.

For bibliographical references to the literature dealing with the problems mentioned in this chapter see the works by Mr. Perry and myself enumerated in the Preface, and also my lecture "Ancient Mariners," published in the *Journal of the Manchester Geographical Society*, 1917.

CHAPTER XI

THE TOMB OF TUTANKHAMEN

THE discovery of the tomb of Tutankhamen by Lord Carnarvon and Mr. Howard Carter has focussed the attention of the whole world upon Egypt and the demonstration it affords of the superb achievements of the Egyptian artists and craftsmen centuries before the Greeks attempted anything in any way analogous to them. It is worth while to call special attention to this new revelation of the part played by Egypt in creating elements of the world's civilization, because it affords further corroboration of the doctrine expounded in this book that in Egypt civilization had its origin, and for thirty centuries and more its chief inspiration.

The new discovery has brought home to all sorts and conditions of people who previously had not paid any attention to such things the fact that in the middle of the fourteenth century B.C. Egypt was the home of a high civilization characterized among other things by superb art, exquisitely made furniture, refinement in dress and ornaments, and extreme luxury in domestic equipment and food. It is unthinkable that this

lavish display of the highest expressions of material and social culture could have flourished on the threshold of a yet unenlightened Europe without exerting, directly or indirectly, some influence.

It is one of the aims of this book to indicate how in much earlier times Egypt was responsible for inoculating Europe and Asia with the elements of her culture. The importance of the discoveries in the Valley of the Tombs of the Kings in this connexion is the fresh revelation it affords of the development of the arts of furniture-making, the working of textiles, and a hundred and one other elements of culture which in later centuries appeared in Europe as new contributions from Egypt to the texture of our common civilization.

At the time when the Pharaoh Tutankhamen lived and died the civilizations of Crete and Syria, which many centuries earlier had been stimulated by Egypt to develop their own culture, had attained a high stage of achievement. Egypt was in intimate communication with both of these countries, and was benefitting from the stimulating effects of such contact: but this does not imply that the superb workmanship displayed in the furniture and jewels, the sculpture and the textiles, was alien in inspiration. For all these arts were invented in Egypt, and through several millennia had been cultivated there. But the foreign relations to which I have

referred no doubt provided an intense stimulus, and also were responsible for introducing new motives. As an example one might refer to the chariot, then only recently introduced from Syria, as one of the results of this foreign intercourse. These incidents serve to illustrate the mechanism of culture contact and the process of give and take that has been taking place ever since mankind began to create civilization. For no cultured people has ever been able to develop in isolation. Nations do not flourish in watertight compartments. Diffusion of culture has been taking place throughout the whole history of civilization. Giving and receiving, both of material and ideas, have been the vital factors in effecting progress.

If the discovery of Tutankhamen's tomb has rendered the important service of having forced men to recognize these Egyptian achievements, it should help to prepare their minds for the recognition of the extent of the debt civilization owes to Egypt for giving it birth and continuously inspiring it throughout its youth and adolescence. For the technical achievements of the stonemasons and carpenters, the sculptors and weavers, the workers in metal and in precious stones, displayed in Tutankhamen's tomb afford a fresh demonstration of the fact that in them we are witnessing the workmanship of the men who invented and developed these arts—and that

Egypt in fact was the parent of civilization. But the preparations made for housing the pharaoh's mummy, and for making such elaborate provision for all its needs, reveal with childlike directness the origin of many of the deepest beliefs and ritual practices which have been borrowed by the world at large, in many cases without any understanding of their origin or their real meaning. Other peoples have adopted these Egyptian customs without bothering to discover why they were practised. The pre-eminent value of the study of Egyptian archæology is that it affords the naive explanation of a thousand and one of the things which, under the influence of tradition, we are daily and hourly doing without knowing why we do so.

In the time of Tutankhamen, and also of his immediate predecessors and successors, there were very intimate relationships between Egypt and Syria and frequent intermarryings between members of the royal houses. The written records of the eighteenth and nineteenth dynasties thus illustrate one of the processes of racial admixture between these two countries, the effects of which two millennia earlier are the chief theme of this book.

The earliest inhabitants of Egypt were, so far as we can discover, the people who introduced the cultivation of barley and devised the technique of irrigation, the working of gold and the

discovery of how to extract copper from its ore, and probably they were the first people to use cows' milk as food for human beings. Their action in creating an arbitrary value for the relatively useless metal gold is one of the most significant events in the world's history. For once a magical value as an elixir of life was given to the plastic yellow metal and the beauty and lightness of the bright and untarnished amulets made from it made an insistent appeal to the æsthetic sense of the people gold was sought for far and wide, and as the result it acquired an arbitrary value which has been the dominating influence in the world ever since. Many centuries before it was the material of currency gold was being sought for by exploiters who roamed as far as Ireland and the Gold Coast of Africa in the west, Zimbabwe and Madagascar in the south, and Japan, the Phillipines, Melanesia and America in the east to obtain it. Gold thus became the chief incentive which led to the diffusion of civilization throughout the world, for every miner's camp became a focus of alien culture planted in the wild places of the earth. But it also became the lure for the greed of mankind and the chief factor in creating strife and warfare. The tombs of Tutankhamen and the other pharaohs afford a striking object-lesson of the effects of such greed, which was so potent that the subjects of the pharaohs who were

regarded as gods could not be restrained from desecrating their burial places to obtain the gold, the artificial value of which the Egyptians themselves had been responsible for creating.

At the time of Tutankhamen the gold that was thus the chief lure of the grave-robbers had not yet been used for currency, although it was the substance which one nation paid to another as tribute. It was valued, however, as the material for making jewellery as well as for its supposed magical properties as a giver of life and surrogate of the Great Mother Hathor, who was the birth-producer or bestower of life and the rejuvenator of men. But Hathor was also the Divine Cow or milk-giver : she was also identified with the moon, which was supposed to control the life-giving powers of women : but another form assumed by her was a grain of barley. When the Egyptians first devised the means of cultivating barley the cereal attained tremendous importance, not merely as the staple article of diet and the material from which the divine (i.e. life-giving) beer was made, but also because the form of the grain reproduced that of the cowrie-shell, which was already regarded as a symbol of the life-giving powers of women. Hence the grain of barley was regarded as life-giving, not merely in the narrower sense of food, but also in the magical sense as a surrogate of the Great Mother.

Gold originally acquired its reputation for magic because it was used for making amulets of shells. I have referred to these matters here for the purpose of calling attention to the fact that the earliest currencies, cowries, grains of barley, cattle, and gold were all surrogates of the Great Mother. The arbitrary value originally attributed to these various objects was so tremendously enhanced when they became identified with the Great Mother (and so acquired a magical potency) that they passed into currency. At the time of Tutankhamen barley was the currency in Egypt, and for many centuries the grains of this cereal had already been regarded as repositories of vital substance, as forms of the Corn Mother or, more correctly, as the Barley Mother. But in the tombs of Tutankhamen's immediate predecessors and successor figures of the god Osiris, made of germinating grains of barley, were put into the burial chamber magically to convey to the dead pharaoh the life-giving properties of the Great Mother in the act of giving life to the sprouting barley.

In Chapter III (page 38) I referred to the so-called "steatopygous" figurines found in the early graves in Egypt elsewhere. They were really intended to give expression to the idea of the identification of the cowrie-shell (and grain of barley) with the Great Mother, and they represent the earliest attempts to personify these natural

objects and convert them into human form. In them we catch the transitional stage in the conversion of an amulet into a goddess, the first attempt to represent the personification of the amulet in a material form.

If the magnificence of the treasure found in Tutankhamen's tomb has done more to convince the world at large of the reality of the Ancient Egyptians' part in the history of civilization than years of serious argument has accomplished, other important events are now happening to strengthen the general interpretation of the meaning of this evidence.

Working on behalf of Harvard University and the Boston Museum of Fine Arts, Professor George A. Reisner has been recovering the history of Ethiopia. He is revealing to us for the first time the extent of the ancient Egyptian domination of the Soudan and the high state of civilization which was maintained by the Egyptians for many centuries far south in the Nile Valley. His researches are of peculiar interest to the readers of this volume (which is based so largely upon his work in Egypt) because it affords a specific illustration of the methods and the motives for the diffusion of culture. In this southern extension of their influence the Egyptians maintained certain practices (such, for example, as pyramid-building and wholesale human sacrifice) for many centuries after they

had been abandoned in Egypt itself. The motives for their exploitation of the Soudan are to be found in the fact that from it they obtained resins, incense, ivory, ebony, leopard skins, ostrich feathers, negro slaves and many other things that they regarded as essential. But above all the gold deposits scattered in the eastern desert from the latitude of Thebes as far south as Abyssinia were the chief reason for the occupation of Nubia and the Soudan.

In exploiting the eastern desert the Egyptian prospector also became one of the important cultural links between the Nile Valley and the Red Sea littoral, which played so vast a part in the early history of civilization.

Yet another significant demonstration has just been given of the part played by the Egyptians in laying the foundations of scientific knowledge and practice. Professor James H. Breasted, of the University of Chicago, has just published the preliminary account of an Egyptian medical papyrus of the seventeenth century B.C., which sheds an entirely new light upon the state of scientific knowledge in Ancient Egypt. The empirical knowledge of the Egyptians and their ingenuity in devising magical incantations have long been known: but to most people the fact that eleven centuries before the time of Thales and the Ionian school there were in Egypt men who were pursuing truly scientific methods of

observation and rational inference comes as a revelation. However, the discovery is in full accord with what we have learned from so many other lines of enquiry. The Egyptians created civilization and devised its fundamental arts, crafts, and beliefs, as well as the scientific doctrines of which it was the material and intellectual expression.

Professor Reisner's latest results are described in the *Illustrated London News*, January 27, 1923, page 126.

Professor Breasted's account of "The Edwin Smith Papyrus" will be found in the *Bulletin of the Society of Medical History of Chicago*, January 1923, page 58.

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